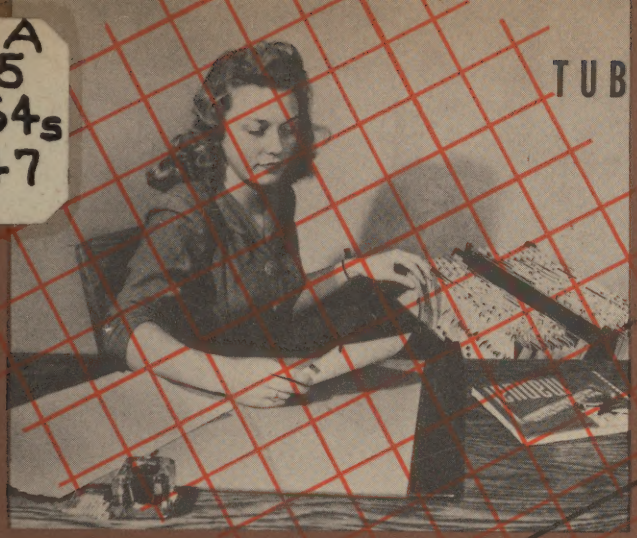

TUBERCULOSIS RECORD SYSTEMS

State Central Case Records and Local Case Registers

manual

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State Central Case Record Systems

and

Local Case Registers for Tuberculosis

Published by the N. C. State Board of Health
in Cooperation with the Tuberculosis Control Division,
United States Public Health Service
1947

Preface . . .

Almost every State in the Union now has a tuberculosis control program. In response to urgent requests from these States, this manual has been prepared to assist in the establishment of efficient record systems. If tuberculosis control programs are to be fully effective, accurate and complete record systems must be instituted and maintained as soon as possible. This manual presents a proved and tried method of keeping such records, and it is presented in the hope that it will assist in the development of uniform and widely used systems through the country.

Simple and efficient tuberculosis record systems that are planned to meet State and local needs are fundamental to good follow-up procedures. Indeed, mass casefinding is of little value if all cases found are not followed, and the record system is the chief tool in such enterprise. State and local systems facilitate a maximum utilization of limited clinical, laboratory, and field nursing services. To correlate all phases of tuberculosis control, to bring about an equitable distribution of professional services, there exists an urgent need for comprehensive record systems, based upon defined requirements.

With the rapid expansion of local, State, and Federal activities, registers and record systems have assumed additional significance. In a State with an established tuberculosis control program, a case record system is essential for administration, current inventory of the case load, interval evaluation of the effectiveness of control activities, and for a realistic knowledge of the extent of the problem.

This manual employs throughout its pages a term which is new to statistical nomenclature. In order to differentiate between the State records and the local records, the term, "State Central Record System," has been used to designate the State records, while the familiar term, "registers," has been used for local record systems. These terms are clearly defined in the text.

The work in this manual is based on extensive field studies, particularly in the States of Oregon and Kansas. Research was conducted by the Field Studies Section, Tuberculosis Control Division, U. S. Public Health Service. Special acknowledgment is made to Dr. J. Yerushalmy, who supervised this project, to Miss Mary Burke, Mr. Deward Waggoner, to Mr. Herbert Sauer, Miss Marcella Siegel and to Mr. Maurice Eysenburg.

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INTRODUCTION

In local health departments it has long been recognized that simple and efficient tuberculosis case registers are indispensable tools for case holding, case management, evaluation of activities and definition of local problems. In State health departments, with the expansion of tuberculosis control activities, it has become apparent that there is need also for central State case record systems for program planning, supervision and evaluation.

State and local case record systems will, by their very nature, be interdependent, each contributing significantly to the success of the other. Many functions will be common to both, yet each system will serve distinct purposes. It is, therefore, desirable to use a different designation for each system. For purposes of clarity the local system will be called a *case register* as is the common practice, and the State system will be referred to as the *State Central Case Record System*. The major emphasis of the local register is case supervision; that of the State Central Record System is program management.

Much serious thinking and study has been given to local tuberculosis registers during the last decade. One of the significant contributions in this field was made by E. X. Mikol in 1943 in his monograph, published by the National Tuberculosis Association.[1]

Early in 1944 the U. S. Public Health Service initiated research projects to study various types of rec-

1. Mikol, E. X., M. D., A Manual of Methods for Organizing and Maintaining a Central Tuberculosis Case Register, NTA, 1943.

ord systems for tuberculosis control activities. The study included case registers and central record systems for health departments, as well as record systems for nursing and medical social services, clinics and sanatoria. The first phase of this research was the development of case record systems and registers for State and local health departments. The present manual, the first in a series, presents a detailed description of the State Central Record System and accompanying local registers, with special emphasis on installation, operation and maintenance.

A complete system of local case registers within a State would simplify the installation and maintenance of a State Central Case Record System. Therefore, in the opinion of many, the development of local case registers should precede the installation of State Central Record Systems. Accordingly, in its early phases the Public Health Service study was conducted in local health departments. Extensive preliminary planning consisted of a review of the potential functions of the case register, the determination of the relation between the agencies participating in tuberculosis control, a study of various types of equipment, the designing of forms and the development of reporting methods. Following this, several experimental local case registers were installed.

As the study progressed, however, it appeared that the same mechanics were required to set up each local system and that much work was being duplicated. The same problems of determining sources of information, securing complete exchange of information and formulating plans for installation and maintenance had to be met for each local project. It was found also that local communities could neither supply nor support trained personnel. Moreover, whenever registers had been established independently by local health departments, there were variations among them, and the development of a State Central Record System from these different local registers presented additional complications.

These and other difficulties led to the view that the establishment of a State Central Case Record System might be a better initial step in the development of tuberculosis case record systems. There are many thousand counties and independent cities in the United States, but only 48 States. Would not the prior installation of a State Central Case Record System for tuberculosis and the existence of a trained statistician and supervisory field workers be a more effective method of developing local registers? Would not the total task, that of establishing both local and State systems, be simplified if the mechanics were applied first to the State as a whole and then extended to the local units? Once the State Central Record System is established, trained personnel, uniform methods and standard forms and equipment would be made available to local units. Would not the broad objectives of State and local systems be more easily realized by building a State Central Record System first?

These questions were explored during field study projects in two States, Kansas and Oregon, where State Central Record Systems for Tuberculosis were planned and installed. Methods of approach were essentially those of installing local tuberculosis case registers except for the larger scale of operations. Key officials and agencies were consulted, channels of reporting opened, forms devised and personnel recruited and trained.

Although neither of the two projects has been in operation long, it has been amply demonstrated that a State Central Case Record System is workable and

practicable. By field experience it has been shown that sources of information and reporting can be routed through a State Central Record System and that the Central Record System can be installed and maintained much the same as a local tuberculosis case register. Comparison between existing local registers and the proposed State Central Record System shows only one important difference, which is one of use. The local register is primarily a tool for individual case management, while the State Central Record System is essentially an administrative tool for program planning, supervision and evaluation. Since the State system does not require the detailed information necessary for case management, it may abbreviate, summarize or eliminate many of the facts necessary for a local health department register.

The simple transcription and transfer to a local health department of its particular section of the State Central Record System becomes the first step in the installation of each local register. The State Central Record System in no way replaces the local register. In fact, one of the main justifications for a State Central Record System is the value of such a system in the establishment of local case registers. Instead of discouraging the development of registers, the existence of a State Central Record System stimulates their installation. Both are necessary because of differences in function; one actually complements the other.

It is hoped that this manual will be useful to public health workers in the planning, establishment and operation of case record systems for tuberculosis. It outlines for the staff members of the tuberculosis control office their related responsibilities in establishing and using the record systems. It will attempt to answer these questions:

1. What is a State Central Record System for Tuberculosis?
2. Why is a State Central Record System needed?
3. How large a task is the installation of a State Central Record System?
4. What equipment is needed?
5. How can information be interchanged?
6. How are initial cases selected?
7. How is a State Central Record System installed and maintained?
8. How is a Local Register installed?
9. How is a Local Register maintained?
10. What statistical data will the State Central Record System provide?

1 WHAT IS A STATE CENTRAL RECORD SYSTEM FOR TUBERCULOSIS?

THE local case record system (the register) and the State system (The Central Record System) are both schemes for recording and organizing current medical and public health information about tuberculosis. Early in the manual, therefore, it appears desirable to indicate how each system fits in the broad field of medical record keeping.

Probably the most common medical case record system is that kept by the practicing physician for his own reference. Each case record is a series of narrative entries in chronological sequence containing whatever identifying data, diagnoses, treatment and progress notes the physician thinks will be useful in the management of his case. The record is intended for the private physician's use alone, usually has little formal arrangement and has value only if the patient returns for treatment. It reflects the individualized interdependence between doctor and patient. One characteristic of that relation is that the patient decides whether he will return to the same physician, go to another physician or go to none at all.

Hospital record systems represent a somewhat more complex scheme of case record keeping since they are essentially an aggregate of many physicians' reports. Information entered on the hospital case record is contributed and used by many persons, and a greater degree of uniformity in the arrangement and content of the record is required. In the main, the source of information on each patient is the hospital staff, and the record is used only by the staff for direct management of the patient while he is hospitalized. Once the patient has left, the hospital usually can take no responsibility for the continuation of medical care. Again it is the patient who decides whether he will get further services, this time from the hospital; his decision determines the completeness or currency of the hospital record.

Clinic records are a further development in case record systems. They too are collections of individual case histories, uniformly arranged, drawn from the one source—the clinic—to be used by the clinic staff for individual case management. Because a clinic usually offers specialized services to a large number of persons, certain details of identifying data,

examinations, diagnoses and treatment are always wanted, and the record forms are designed with definite positions for such details. A tuberculosis clinic record form, for example, may contain boxes for date and result of sputum examinations, date and impression of X-ray examinations, data on surgical treatment, laboratory findings, nursing and medical social service—all of which may be important in the treatment and management of the case. The clinic record system will ordinarily include records only for patients under treatment or those scheduled to return to the clinic, but the patient's return is still his own responsibility.

The services of all three groups, the private physician, hospital and clinic are a response to the individual's request for medical care. Although considerable information may be found in their case records, these records do not always contain the current status of the patient, since the volition for continued or current supervision is the patient's.

The local health department case records for a specific service embody a new point of view in medical record keeping. Because the health department has a responsibility broader than that of the private physician, hospital or clinic, its records reflect this social obligation. No longer is the health of the individual patient the focal point; it is the health of the community which concerns the health department. To meet its obligation to the public, a record is kept for each case of disease which threatens the community's health; and to be valuable this record must be accurate, complete and current. The health department record system which supplies this current information is called a register; its currency distinguishes a register from the previously described record systems.

The health department uses its register in an attempt to make sure that each case has adequate medical supervision. The health department actively seeks out information from many sources, including clinics, public health nurses, hospitals, private physicians and laboratories; and the register becomes a summary of these reports. A local health department register includes not only data about those patients under a given supervision, but data on all patients in need of medical or nursing care.

A local register needs fewer details of personal and medical history than a clinic or hospital record system. The register does not replace any of the clinic, nursing or hospital records but is rather an abstract of these records. Uniformity in arrangement and content of data becomes essential. The health department register places emphasis on the *public health* rather than on the clinical aspects of disease. For example, data on sputum is of importance not only to the clinic and the patient but also to the health department. However, while this information is used by the clinic primarily to furnish medical service to the patient, it is used by the local health department to prevent the spread of tuberculosis.

The group that uses this summary record—the register—is no longer limited to those who furnish direct services to the patient, but includes the health officer, division director, public health nurse and medical social worker. The register is available to this group for individual case management, distribution of case-load and definition of local problems.

The State Central Case Record System for a particular service, such as tuberculosis, can be considered an extension of the local register plan. A State health department is charged with the protection of the health of the people of the State. Its function is to

administer, plan, supervise and evaluate the public health program. The sources of information become more numerous and farther removed from the Central Record System. Current reports come in from local health departments, clinics, sanatoria, laboratories and private physicians throughout the State. This material is abbreviated and succinctly summarized on standard cards for administrative use. Management of the case may not, in all instances, be affected directly by the persons who use the Central Record System, but it aids the division director and his staff in administering the State tuberculosis program. For example, when the local health department knows that a patient must wait several months before admission to a sanatorium, it can profitably devote its efforts during this period to insure that proper isolation and care are given to the individual patient awaiting admission. This is the function of the local health department in preventing the spread of infection to the household and community. On the other hand, when the State health department learns how many patients must wait long periods for admission to a sanatorium, it can accurately appraise the need for hospital beds.

The State tuberculosis division can develop sound programs only when it has authentic and current information. A full knowledge of the tuberculosis problems of the State enables the State tuberculosis division to plan and operate a practical and effective program. The State Central Record System, because of current case histories, offers a quantitative measure for such planning and administration.

A State Central Record System for tuberculosis and the local tuberculosis case register may each be defined as a system of records for maintaining a current summary of pertinent medical and public health data on those proven and suspected cases of tuberculosis which, according to health department policy, require some type of supervision.

2 WHY IS A STATE CENTRAL RECORD SYSTEM NEEDED?

Tuberculosis control activities in State and local health departments throughout the nation have been accelerated during recent years. This development is due largely to the use of new methods of case finding which economically screen large groups of people. Widespread use of small film techniques has discovered more active, subclinical and suspected pulmonary tuberculosis than has ever been detected in the history of public health. Such case-finding programs are now in operation on a large scale.

Even a casual survey of local programs in tuberculosis control reveals that quality and quantity of case finding has far surpassed performance in follow-up and case management. Although services of clinics, sanatoria and public health nursing have not developed as rapidly as the techniques of case finding, plans are being made for great increase in follow-up and medical supervision. Increased assistance to local programs has become available through additional appropriations of Federal and State funds. The installation of coordinated central record systems, State and local, is a problem of immediate significance if the full benefits of the new programs are to be realized. In too many instances not only have newly discovered suspects been inadequately followed, but also known active cases have remained unsupervised because of the lack of administrative control which could have been provided by a Central Record System. For this reason the installation of central case record systems, state and local, should become one of the first activities of a tuberculosis control program. In practice, tuberculosis record systems may be the essential administrative and statistical tool needed for development of adequate services.

The usefulness of case registers for local health departments serving districts, cities or counties has been amply demonstrated. Their installation and use, nevertheless, has been limited to health departments with full-time health officers, clinic facilities and reasonably adequate public health nursing staffs. A local tuberculosis register serves to facilitate case management and helps direct an equitable distribution of services for determining tuberculosis. A State Central Case Record System for tuberculosis offers a

practical plan for accomplishing these purposes so vital to the Statewide tuberculosis program.

It is possible that in some States the physical task of maintaining a large State Central Record System for tuberculosis would be extremely difficult because the system would be too cumbersome for practical use. Factors that influence the size of the task and volume of work are:

1. Prevalence of tuberculosis
2. Extent of case finding (mass X-ray service)
3. Quality of reporting
4. Amount of service for tuberculosis
    a. sanatoria
    b. clinics
    c. nursing and other field services
    d. laboratories
    e. rehabilitation
5. Size and type of population

Since it is impossible to judge the first four factors without field experience in the States, the factor of population, with full realization that it alone is inadequate, can be taken as the best available criterion for defining which States should use State Central Record Systems.

State Central Record Systems will not be recommended for the larger States in the United States (those with over four million population) because their operation in these States might be unwieldy. It cannot be definitely stated that Central Record Systems are unworkable or impractical in these States, since further study is necessary before final decision can be made. However, this tentative population standard would exclude nine States. It is possible that more States would be eliminated after a study of other factors which might influence the size of the system. Such an appraisal should be made by each State department of health that contemplates the installation of a Central Record System for tuberculosis.

The States chosen for discussion may be divided into several categories according to the degree of development of public health services and the need for State Central Record Systems. (See Figure 1)

In 1942, 10 States showed less than 25 percent of their population served by local full-time health officers. In 7 additional States, 25 to 49 percent of the population had such coverage; in 13 States, 50 to 74 percent; in 14 States, 75 to 99 percent and in 4 States, 100 percent of the population was served by full-time health officers. If the States were divided according to the percent of local health jurisdiction areas (city or county) served by full-time health officers rather than the percent of total population served, the lack of health department services would become even more apparent.

In a State where all or most of the local health departments have well-developed services for tuberculosis and well-functioning local registers, the additional task of maintaining a State Central Record System may not appear to be justified. But even with these well-organized local services, a State Central Record System would provide valuable summary data to the State tuberculosis office for planning, supervision and evaluation, and for consultation service to local health departments.

There are also those States that have complete local health organizations with established tuberculosis programs but few or no tuberculosis record systems. Here State health departments could render valuable service by assisting in the establishment of a uniform

Percent of Population Served by Local Full Time Health Officers and Ratio of Public Health Nurses to Population, All States 1942

Source: Emerson, Haven M. D., Local Health Units for the Nation; Commonwealth Fund, New York, 1945.

Region and State	Population in millions, 1940	Percent of population served by local full time health officers	Public health nurses per 5,000 population
United States	131.7	66	0.6
NEW ENGLAND			
Connecticut	1.7	77	0.9
Maine	0.8	24	0.4
Massachusetts	4.3	67	n.r.
New Hampshire	0.5	43	1.1
Rhode Island	0.7	40	0.6
Vermont	0.3	none	0.7
MIDDLE ATLANTIC			
New Jersey	4.2	53	1.1
New York	13.5	77	0.8
Pennsylvania	9.9	70	0.5
SOUTH ATLANTIC			
Delaware	0.3	58	0.8
District of Columbia	1.2	100	1.2
Florida	1.9	70	0.5
Georgia	3.1	82	0.6
Maryland	1.8	100	0.6
North Carolina	3.6	92	0.5
South Carolina	1.9	100	0.5
Virginia	2.7	72	0.4
West Virginia	1.9	77	0.3
EAST NORTH CENTRAL			
Illinois	7.9	65	0.5
Indiana	3.4	12	0.4
Michigan	5.3	87	0.7
Ohio	6.9	68	0.5
Wisconsin	3.1	38	0.6
EAST SOUTH CENTRAL			
Alabama	2.8	100	0.4
Kentucky	2.8	90	0.6
Mississippi	2.1	89	0.4
Tennessee	2.9	89	0.6
WEST NORTH CENTRAL			
Iowa	2.5	6	0.3
Kansas	1.8	41	0.3
Minnesota	2.8	34	0.5
Missouri	3.8	54	0.4
Nebraska	1.3	25	0.5
North Dakota	0.6	10	0.4
South Dakota	0.6	11	0.4
WEST SOUTH CENTRAL			
Arkansas	1.9	87	0.4
Louisiana	2.3	93	0.6
Oklahoma	2.3	61	0.3
Texas	6.4	56	0.3
MOUNTAIN			
Arizona	0.5	68	0.8
Colorado	1.1	53	0.7
Idaho	0.5	21	0.5
Montana	0.6	32	0.6
Nevada	0.1	15	1.1
New Mexico	0.5	100	0.7
Utah	0.6	14	0.8
Wyoming	0.2	13	0.6
PACIFIC			
California	6.9	93	0.6
Oregon	1.1	87	0.7
Washington	1.7	76	0.7

Fig. 1

system of local tuberculosis registers. In these States, though, the prior establishment of a State system would simplify the task of developing local registers.

A study of the remaining States will reveal varying degrees of development of public health services. Some will have a dearth of health departments, clinics and nursing services. Many will lack sanatorium facilities. Most States, however, are contemplating expansion of local and State tuberculosis services. It is in these States that it is particularly important to install Central Record Systems to assist in the development of new and expanding local tuberculosis programs. Many of the States in the nation and a large number of local health departments will fall into this group.

Of course, the development of a State Central Record System before the existence of local registers leads to many difficulties, the foremost of which is that, in the beginning, the State system must contain more elaborate information than would be necessary if local registers were in operation. Once local registers are developed, the State can make the transition from complexity to simplicity with little effort.

The State Central Case Record System will be useful to the State health department in fulfilling its responsibilities to:

1. Assist in establishing local case registers
2. Follow up suspects discovered by mass X-ray
3. Provide a State-wide clearing center of information
4. Guide and consult with local health personnel
5. Follow up and supervise cases in areas without local health departments
6. Plan the State-wide tuberculosis control program

1. Assist in establishing local case registers:

Registers are recommended only if the local health workers actively support their installation. If the local health departments independently establish registers, the lack of uniformity in record forms and definitions makes their coordination for State planning a difficult problem. In many instances a health department may favor the installation of a tuberculosis register but may be unable to proceed with the task because of lack of personnel familiar with reporting methods and record systems. Since the register installation presents rather difficult technical problems requiring trained personnel, professional assistance from an outside source is often needed.

The existence of a State Central Record System and experienced State personnel will simplify the local installation. By working out details, plans and procedures for the State, the State tuberculosis administrator and the records supervisor gain experience which will be valuable in the establishment of local registers. At the same time the essentials of the local register are set up in the State Central Record System and can simply be copied and transferred to the local health office.

2. Follow up suspects discovered by mass X-ray:

Mass radiography is frequently a major activity of a State tuberculosis control division. Inasmuch as mass surveys are often planned or directed by the State tuberculosis division, it is the responsibility of the director to refer newly discovered suspects to health departments, physicians and clinics in order to (a) complete diagnosis, (b) insure supervision of newly discovered cases and (c) measure the quality of follow-up work.

To realize the full value from mass surveys, suspects must be followed until those in need of medical care are brought under supervision and reported as cases. In many States too little attention is paid to this, the most important consequence of mass radiography. For this reason, the records of suspects revealed through mass X-ray should be included in the State Central Record System. Although follow-up of suspects is primarily a local health department function, a central plan can be formulated by use of the State Central Record System.

3. Provide a State-wide clearing center of information:

A State Central Record System is valuable as a clearing center for current information on cases and suspects reported from the many sources within a State. An efficient central system for interchange of information will currently inform local health departments of movements of their cases and changes in the medical status or supervision of patients, even though the source of the report lies outside the local jurisdiction or outside the State. It is of course desirable that reports from local physicians, public health nurses and clinics be routed through the local health department before transmitttal to the State Record System. But there is information from other sources, such as State clinics, sanatoria, veterans' hospitals and out-of-State agencies, which can be most effectively distributed to the proper local health department through one clearing center. Although this service of the State tuberculosis office could proceed in the absence of a Central Record System, the Record System will insure the continuance of service and act as a control against interruption or inadequacy of reporting from any source.

4. Guide and consult with local health personnel:

The Central Record System will give the State tuberculosis division a continuous summary of medical and supervisory status of cases in each subdivision of the State. The State director must have such a summary to offer intelligent advice when assistance is needed by the State Public Health Nursing Director, the State Tuberculosis Nursing Consultant or the local health department. Equipped with this information, he is better able to discuss local problems with health officers and public health nurses. The planning of new local facilities, such as increased nursing service, clinics and mass X-ray services, will be guided by local needs which can in large part be ascertained from the local section in the State Central Record System. Missing and negative information about medical status and supervision of cases will highlight deficiencies. The need for additional services, such as those provided by sanatoria, clinics and public health nurses, is most effectively demonstrated by existing inadequacies. The Central Record System will provide data describing the local situation such as number of active cases in the home, cases not under public health nursing supervision, and cases receiving no medical or nursing care.

5. Follow up and supervise cases in areas without local health departments:

Many States have a large proportion of counties without full-time health departments, and there may be no public health nursing service in these areas. In addition to the known cases reported from these places, there are cases and suspects currently revealed through mass surveys, selective service examinations and reports of discharges from Army, Navy and Veterans

Administration hospitals. If any public health nursing follow-up is to be attempted, the State nursing division is directly concerned. Public health nurses from the State office are frequently directed to make home visits to certain classes of cases in these areas, and here a State Central Record System becomes an extremely practical tool for direction of services. While the State Central Record System cannot achieve the completeness and detail of a local register functioning in a well-organized health department, it can provide the nurse with knowledge of movements of cases, recent sanatorium discharges and suspects not re-examined.

6. Plan the State-wide tuberculosis control program:

Any State tuberculosis control program should be based upon factual data which in large part can be obtained only through a central record system. The planning of mass surveys, State clinics, and new sanatoria must take into account such factors as (a) geographical distribution of new cases reported, existing cases, and deaths; and (b) type and extent of medical care, supervision and health department service being given to known tuberculosis cases in each local area. The State tuberculosis director has the task of planning a budget. The combination of a statistical summary and qualitative description of tuberculosis control activities provides valid support to the administrator who must justify his health program in terms of extent of the problem, effectiveness of activities and protection of the community.

3 HOW LARGE A TASK IS THE INSTALLATION OF A STATE CENTRAL RECORD SYSTEM?

THE process of installing and maintaining a State Central Record System for tuberculosis is a major administrative and clerical task. Its difficulty should therefore not be minimized. An honest appraisal should be made of budget, personnel, office space and other facilities of the State tuberculosis division which are vital to the successful operation of a State Central Case Record System.

The question of whether to establish a State Central Record System can be answered only after a careful consideration of three chief determinants. These may seem obvious, but there is great danger that one or all may be under-emphasized.

1. **The Central Record System must be genuinely wanted.**
2. **Funds and personnel must be available for installation and maintenance of the Central Record System.**
3. **The plan for the Central Record System must have the active cooperation of all persons and organizations concerned with tuberculosis control.**

1. The Central Record System must be genuinely wanted:

This implies that the director of the tuberculosis division and the State health officer must have a sincere interest in the purpose and uses of the Central Record System. The tuberculosis administrator particularly must be prepared for active personal participation during the period of planning and installation.

During the initial phases of work the director of the tuberculosis division must study and familiarize himself with the whole plan and devote much of his time to guidance and supervision of operations. After justifying the project in the State health department and securing budgetary approval, the director must personally assist in the coordination of sources of information so that all reports will flow to the Central

Record System (see Chapter 5). This means that he will confer with directors of sanatoria, laboratories and chest clinics, State nursing personnel and all local health departments to explain the record system, its uses and plans for interchange of information.

In some places plans may involve changes in existing record forms. Personnel for the Central Record System must be recruited and trained. Of utmost importance is the selection of a competent person to supervise the maintenance and use of the Central Record System. Office procedures in the State division must be correlated with the plan for the Record System. These problems are emphasized because they are primarily administrative, and their solution is dependent on personal guidance from the director of the tuberculosis division.

The director must realize that it is a difficult and time-consuming clerical task to set up a Central Record System. Sources of information with history and current status of known cases must be investigated. From these sources, previously reported cases must be located and their need for public health supervision determined. The clerical staff of the State tuberculosis division will be obliged to visit sanatoria, local health departments, clinics and other agencies to clear reported cases with existing case files. Present or last-known medical and supervisory status, location of cases, as well as any significant intermediate case history must be summarized. The services of two experienced clerks for several weeks may be needed to clear the records in a single county of 100,000 population. It cannot be over-emphasized that sifting and evaluating material for a Central Record System is a difficult and tedious task—even for trained and experienced personnel.

2. Funds and personnel must be available for installation and maintenance of the Central Record System:

This means that funds must not only be budgeted but must be available for equipment and additional personnel for installing and maintaining the Central Record System.

Cost will vary widely with population size, incidence of tuberculosis, extent of reporting and amount of service. A conservative estimate, however, for States of one to two million population is $5,000 for equipment and initial installation and $4,500 per year thereafter for maintenance. Further analysis of the cost follows:

INSTALLATION (*Period of six months*)

Salary of record analyst @ $2,400 per year	$1,200
Salary of three clerks @ $1,500 per year	2,250
Equipment and supplies	750
Field travel and subsistence	500
Miscellaneous	300
Total	$5,000

MAINTENANCE (*Period of one year*)

Salary of record analyst	$2,400
Salary of one clerk	1,800
Field travel and subsistence	300
Total	$4,500

Larger States will require additional expenditures for equipment and clerical assistance.

3. The plan for the Central Record System must have the active cooperation of all persons and organizations concerned with tuberculosis control:

All persons and agencies engaged in tuberculosis control should display a willingness to cooperate in the plan for a Central Record System. During the period of installation, these agencies must agree to open their files to the State personnel who are clearing records. Those most concerned will be sanatoria, local health departments, clinics and nursing organizations, as well as community chest associations. Further, since the private physician will be the only source of information for a large number of tuberculosis cases, some plan must be formulated for securing information about patients last reported under their care. Cooperation from private physicians can usually be secured to permit periodic queries about cases under their supervision. Both plans for initial clearing and subsequent periodic querying of private physicians should be presented to State and local medical societies. Without the continued and complete interchange of information the Record System cannot be successfully maintained as a current system.

If the tuberculosis administrator is aware of the problems that may arise during the installation and maintenance of a Central Record System, he will be better prepared to deal with them. The slow rate of progress will not discourage him. If the director is reasonably sure that the prerequisites outlined in the chapter are met, and if he has secured the understanding and cooperation of all persons and agencies concerned, the operations of installing a State Central Record System will become a smooth process.

4 WHAT EQUIPMENT IS NEEDED?

FILING EQUIPMENT:

Of the different types of filing systems, the visible files have many advantages for a Central Record System or register. Record cards are so arranged that one or two margins of many cards are visible at the same time. The visibility factor is important because it permits rapid selection of record cards by name for reference or posting, and the use of marginal signals contributes to rapid summary of information and to better mechanical operation of the Central Record System. Each case record is signaled for attention, and there is less likelihood that it will be neglected or overlooked. The two best known types of visible filing systems are:

1. Pocket visible: A serial arrangement of cards placed horizontally in drawers, with the bottom margin of each card visible.

2. Vertical visible or off-set visible: A series of overlapping, vertically supported cards allowing visibility of the right vertical margin. A top corner cut gives an added visible margin at a readable angle. A plastic divider is the back support for each row of cards and separates it from the next row. Many rows of cards can be accommodated in a single unit, such as a specially designed desk drawer, a tub or file drawer.

Both types of visible filing equipment have been used for tuberculosis record installations, but experience indicates that the vertical visible file (figures 2, 3) is superior for the uses of a State Central Record System. Card size may vary. Increased marginal area for signaling and a potential capacity of several thousand cards per unit make for a greater overall visibility. The pocket visible equipment, on the other hand, allows but one visible margin and permits a view of only about 60 cards at a time. In addition, hand-sorting for statistical tabulations is facilitated because cards are more easily pulled and refiled in a vertical file.

The cost of vertical visible equipment for a Central Record System will be about one-half that of the pocket visible for a comparable capacity. Total

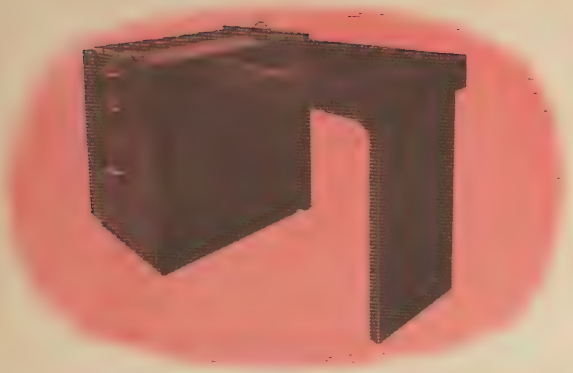


Figure 2

Figure 3

Fig. 2 A single-pedestal desk model for vertical visible files. Each drawer contains three portable trays of cards.

Fig. 3 Two portable trays for vertical visible cards. This equipment would be suitable for smaller health departments.

cost of vertical visible installations will vary because the capacity of a given unit will depend on width and thickness of the cards and the number of dividers. The cards may be purchased from the company supplying the equipment or from the State printing office. In either instance, weight and composition of the card should be adequate for long use, since it will be used from the time a tuberculosis case is first reported to the time the case record is discharged from the Central Record System.

Some of the companies manufacturing the vertical visible type of equipment and their products are Remington Rand—Kard-Site; Diebold—Tradex; Visible Index Corporation—VISI-Record; Acme—Veri-Visible; Visual Records Corporation—Vis-U-All; and Hadley—Visible Record Trays. Kansas installed the VISI-Record two-drawer desk model with a capacity of 7,000 cards, for a total cost of $500. The desk model is a convenient arrangement for the record clerk because it serves as both file and work desk. Oregon purchased an Acme installation of two tubs, each with a capacity of approximately 3,500 cards, for $600.

CENTRAL RECORD SYSTEM CARD:

The Central Record System Card provides space for all significant aspects of case history which may be used for program planning, supervision and evaluation. Although there is a large variety of items to be recorded, the card must be compactly designed to simplify maintenance and reference. This design should include space only for available and necessary data. It must be emphasized that the record card in a State Central Record System is not a substitute for clinic or nursing records which call for specialized details. These details may be summarized, abbrevi-

ated or omitted entirely from the State Central Record System. Because it is hoped that State Central Record Systems will foster the installation of local registers, and because the Record System for a particular county will become the nucleus of the county register itself, there are advantages in the use of identical or similar cards in both systems.

DESCRIPTION OF STATE CENTRAL RECORD SYSTEM CARD:

The recommended card (figure 4) to be used in vertical visible filing equipment was developed after experimentation with tuberculosis registers in two local areas—Montgomery County, Maryland and Washington, D. C.—and State record systems installed in Kansas and Oregon. This card is suitable for a local register or a State Central Record System.

The suggested Record System card is divided into three sections:

1. The upper one-third, horizontally lined for identification data and initial information.

2. The vertical columns on the lower two-thirds of the card for current entries of medical history and treatment.

3. The numbered boxes at extreme right for visible signaling.

Section 1 is common to all types of record cards and needs no discussion. Section 2 represents a departure from commonly used tuberculosis register forms. The proposed arrangement provides one chronological sequence for all entries concerning the patient's medical status and supervision. All signficant events in the case history from the time a first report is received to the time the patient's record is removed from the Record System are listed in their time sequence. Items as widely divergent as original case report, sputum examinations, clinic visits, sanatorium admissions and discharges are recorded as they occur (figure 4A).

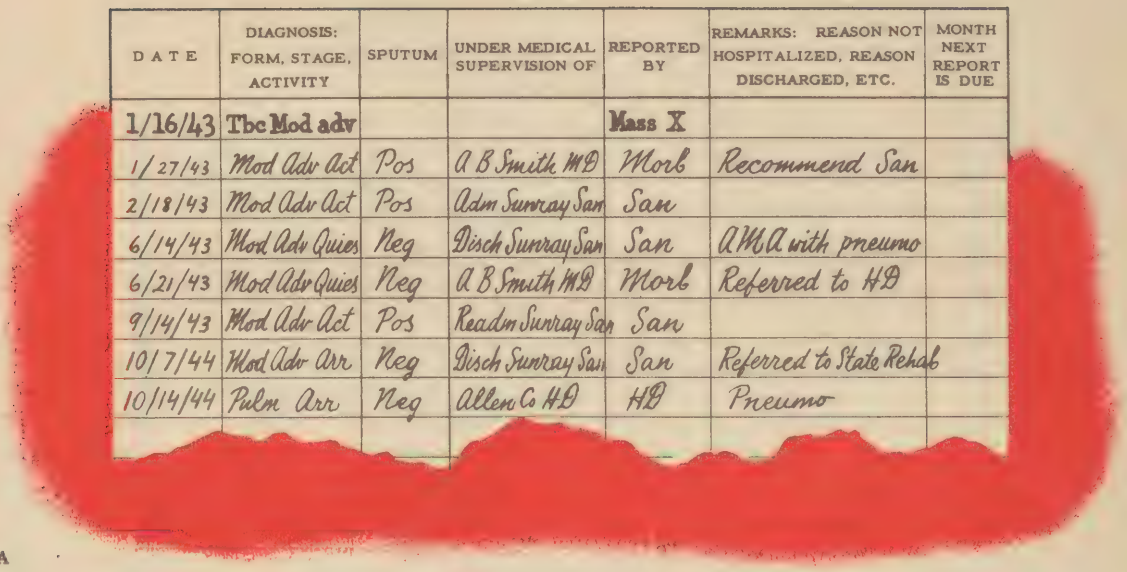
In contrast, the card form recommended in the National Tuberculosis Association manual for tuberculosis registers provides separated chronological sequences for specific categories of information. All sputum results with dates of examination are assembled in one box. Hospital admissions and discharges appear in another box. Dates and readings of X-ray are entered in a third. To get a complete picture of the patient's status, one must select information from many parts of the card.

Experience of Public Health Service personnel with various card designs in many State and local installations has shown that the proposed single chronological sequence has many advantages over the separation of related information into specific boxes. This single sequence does not sacrifice detail. It simplifies posting and reference. Since the last entry is the current information, the patient's disease status is quickly determined. Related information at any given time is found on a single horizontal line and can be correlated with preceding events. By surveying all entries in a single column, any one aspect of the patient's case history can be summarized. Whether the patient ever had a positive sputum may be determined from the sputum column. A glance at the column for supervision will show how many times the patient has been hospitalized. Further, the time relationship between the positive sputum record and hospitalization is readily seen because of the chronological order.

Section 3 is the visible margin, the space reserved for signaling. Here, in addition to the first letter of each month, numbers which can have any desired reference designate signaling positions which


COUNTY
ADDRESS
CASE NO.
LAST NAME
FIRST NAME
BIRTH DATE
AGE
SEX
COLOR
MARITAL STATUS
OCCUPATION
PLACE EMPLOYED
UNDER PHN SUPERVISION
LEGAL SETTLEMENT IN STATE: YES NO
IN COUNTY: YES NO
VETERAN: YES NO
REASON FOR REFERRAL: SYMPTOMS MASS X-RAY SUSPECT
DATE
CONTACT
OTHER
OFFICIAL MORBIDITY REPORT BY
DATE
1
Identifying Data
DATE
DIAGNOSIS: FORM, STAGE, ACTIVITY
SPUTUM
UNDER MEDICAL SUPERVISION OF
REPORTED BY
REMARKS: REASON NOT HOSPITALIZED, REASON DISCHARGED, ETC.
2
Current Entries
MONTH NEXT REPORT IS DUE
1
2
3
4
5
3
Signaling

Figure 4



DATE	DIAGNOSIS: FORM, STAGE, ACTIVITY	SPUTUM	UNDER MEDICAL SUPERVISION OF	REPORTED BY	REMARKS: REASON NOT HOSPITALIZED, REASON DISCHARGED, ETC.	MONTH NEXT REPORT IS DUE
1/16/43	Tbc Mod adv			Mass X		
1/27/43	Mod Adv Act	Pos	A B Smith MD	Mork	Recommend San	
2/18/43	Mod Adv Act	Pos	Adm Sunray San	San		
6/14/43	Mod Adv Quies	Neg	Disch Sunray San	San	AMA with pneumo	
6/21/43	Mod Adv Quies	Neg	A B Smith MD	Mork	Referred to HD	
9/14/43	Mod Adv Act	Pos	Readm Sunray San	San		
10/7/44	Mod Adv Arr	Neg	Disch Sunray San	San	Referred to State Rehab	
10/14/44	Pulm Arr	Neg	Allen Co HD	HD	Pneumo	

Figure 4A

allows for changes in the signaling code. Colored signals may indicate a summary of the supervisory status of cases, such as those in sanatoria, positive sputum or other active cases not hospitalized, or cases under no medical supervision. Signals may indicate when additional information is due and when action should be taken by the health department. They may also designate a group for special study or attention, such as mass X-ray suspects. Each health department will use a signaling plan which best suits its needs; the real significance of the signal, however, is that it indicates *action.*

SPECIFIC INFORMATION:

Although there are certain types of information which should be common to all Central Record Systems, no one form can be universally suitable. A special problem in one State may suggest the inclusion on its Record Card of an item relatively unimportant in another. For example, the Tuberculosis Control Division of Kansas was concerned with the problem of establishing pneumothorax stations, since there were many areas with no facilities for refills. Therefore, Kansas Record System cards are designed to indicate whether the patient is receiving pneumothorax. If local health departments plan to install registers based on the State Central Record System, it is advisable to use identical cards for both State and local systems. In that event the State card may be designed to include space for information not needed by the State health department but wanted by the local health departments for management and supervision of cases. The Kansas and Oregon Record System cards were designed for use both in State Central Record Systems and local registers.

CLASSIFICATION OF THE ITEMS ON THE PROPOSED FORM FOLLOWS:

Identification and initial information

Case identification
- County
- Case number
- Name
- Address
- Birthdate
- Age
- Sex
- Color
- Marital status
- Occupation
- Place employed

Under PHN supervision
- Yes or no
- Agency supervising: (e.g., health department, school or name of private nursing agency)
- Reason not under PHN supervision

Legal settlement or residence and veteran status
- Information to determine eligibility of patients for sanatorium care and to evaluate the scope of the veteran and non-resident problems

Reason for referral
- What prompted first examination for tuberculosis, (e.g., symptoms, contact, mass X-ray suspect, Selective Service examination, Army or Navy discharge)?

Date
- Enter month and year of referral

Official morbidity report
- Reported by: (e.g., name of physician, clinic, health department, sanatorium or other agency)

Date of report
- Enter date of first official morbidity report

Chronological history of medical supervisory status

Date of report
Diagnosis
Sputum
Medical supervision
Reported by
Remarks
Month next report or examination due

Optional information on reverse side of card

Whether additional information is carried on the Record cards will depend on State policy regarding supervision of cases. If actual supervision is conducted from the State tuberculosis division and if a system of local registers is planned, additional information may be desired on the State Record Cards.

Other agencies
Date each nursing visit was made

For each contact:
- Name of contact
- Relationship to case
- Year of birth
- Sex
- Color
- Date examined
- Diagnosis
- Date due for re-examination

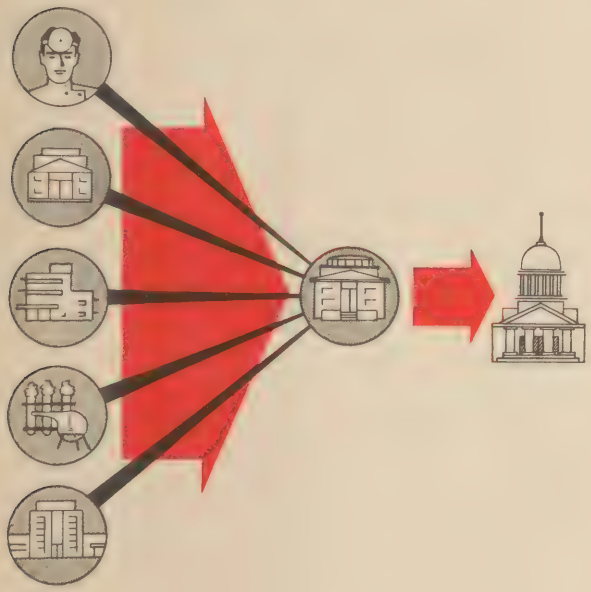
5 HOW CAN INFORMATION BE INTERCHANGED?

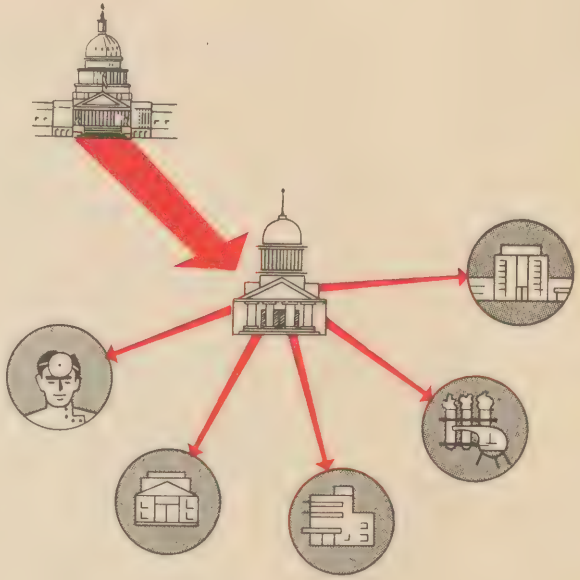
TO maintain current information on cases is a fundamental function of the State Central Record System. Without this the System deteriorates into little more than an index of reported cases. All potential sources of information must be thoroughly investigated, and plans must be formulated and approved for maintaining a flow of essential information through the Record System. Information must circulate to the State health department, local health departments and all other agencies or individuals who are concerned with examination, diagnosis, treatment or supervision of tuberculosis patients. Only the coordination of records and reporting methods from these agencies will insure continuous and complete interchange of information. A scheme must be put into operation which will tap all sources of information for the State Record System. Thus, private physicians, sanatoria, tuberculosis associations, health department clinics and nurses, and private nursing organizations must be acquainted with full details of the Record System. Only if their continuous cooperation in reporting is secured will it be a current live record system.

In addition, the Record System becomes a central clearing house for information which is originally reported directly to the State tuberculosis division. This distributon of information is the service the State tuberculosis division renders to other agencies in return for their reports.

GENERAL PLAN FOR INFORMATION INTERCHANGE:

The procedure for interchange of information between the State Central Record System and other agencies will vary of course, and must be adapted to the facilities and policies of each State. In general, the interchange of information could follow this pattern:

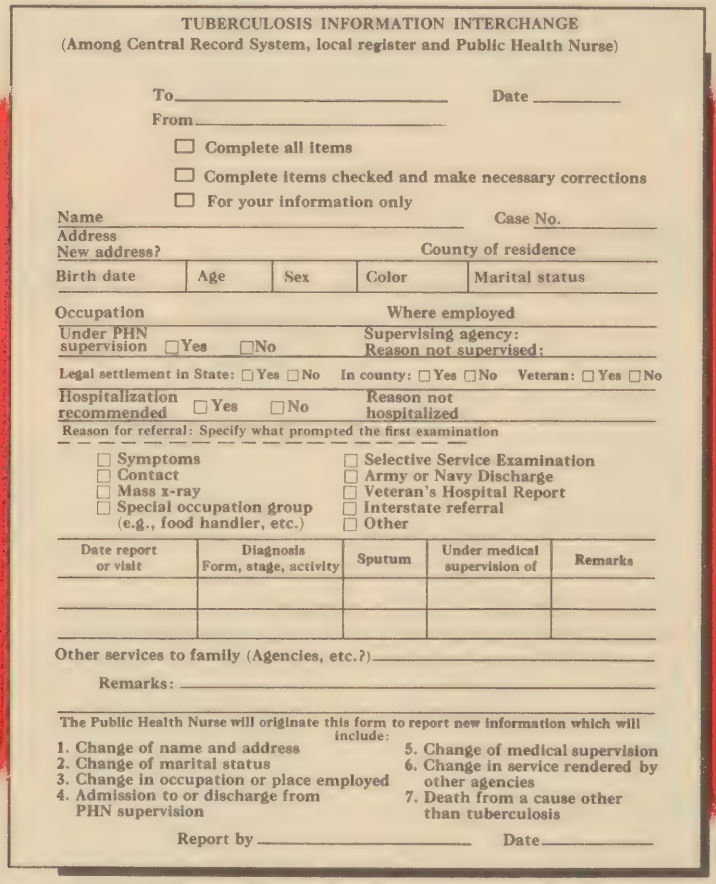




1. All information originating from private physicians, local health department clinics, city and county sanatoria, laboratories or other institutions in an area with a full-time health department will be sent first to the local health office. The information may be entered on the local register, then forwarded to the State Central Record System.

2. All information starting from a State, Federal, or private institution will be sent directly to the State tuberculosis control office. After entry in the State Central Record System, the information will be forwarded to local health departments. In addition, information about patients in counties without full-time health officers may reach the State tuberculosis division first. This too will be routed to persons supervising public health work in local areas.

AN information interchange form (figure 5) patterned after the Record System card is suggested for transmitting and requesting information from State and local health departments. This form may be originated by either health department. For example, the nurse reports that a patient has moved to another county. The form first reaches the local register and then the State Central Record System. On the other hand, the State Central Record System may use the same form to report to the nurse in the county to which the patient has moved. Sources of information and reports with suggested procedures for routing follow:



TUBERCULOSIS INFORMATION INTERCHANGE
(Among Central Record System, local register and Public Health Nurse)

To _____ Date _____

From _____

☐ Complete all items

☐ Complete items checked and make necessary corrections

☐ For your information only

Name _____ Case No. _____

Address
New address? County of residence

Birth date	Age	Sex	Color	Marital status

Occupation Where employed

Under PHN supervision ☐Yes ☐No Supervising agency:
Reason not supervised:

Legal settlement in State: ☐ Yes ☐ No In county: ☐ Yes ☐ No Veteran: ☐ Yes ☐ No

Hospitalization recommended ☐ Yes ☐ No Reason not hospitalized

Reason for referral: Specify what prompted the first examination

☐ Symptoms
☐ Contact
☐ Mass x-ray
☐ Special occupation group (e.g., food handler, etc.)
☐ Selective Service Examination
☐ Army or Navy Discharge
☐ Veteran's Hospital Report
☐ Interstate referral
☐ Other

Date report or visit	Diagnosis Form, stage, activity	Sputum	Under medical supervision of	Remarks

Other services to family (Agencies, etc.?) _____

Remarks: _____

The Public Health Nurse will originate this form to report new information which will include:

1. Change of name and address
2. Change of marital status
3. Change in occupation or place employed
4. Admission to or discharge from PHN supervision
5. Change of medical supervision
6. Change in service rendered by other agencies
7. Death from a cause other than tuberculosis

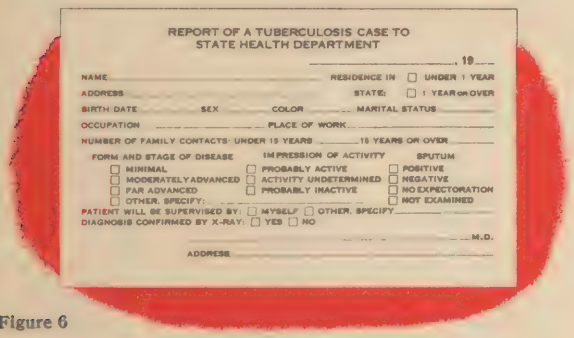
Report by _____ Date _____

Figure 5

REPORTS

• MORBIDITY REPORTS

In all States, either by law or health department regulation, tuberculosis is a reportable communicable disease. The attending physician in some States records only the name and address of the patient and "tuberculosis" on a general epidemiological report. In others, a special tuberculosis report form such as figure 6 is used, which provides more specific information concerning address, age, sex, color, marital status, occupation, legal residence, stage and activity of disease and sputum tests. Figure 6 is preferable because it gives public health workers information needed for identification of the patient and some basis for intelligent follow-up.



REPORT OF A TUBERCULOSIS CASE TO STATE HEALTH DEPARTMENT

_____, 19____

NAME _____ RESIDENCE IN ☐ UNDER 1 YEAR

ADDRESS _____ STATE: ☐ 1 YEAR or OVER

BIRTH DATE _____ SEX _____ COLOR _____ MARITAL STATUS _____

OCCUPATION _____ PLACE OF WORK _____

NUMBER OF FAMILY CONTACTS: UNDER 15 YEARS _____ 15 YEARS OR OVER _____

FORM AND STAGE OF DISEASE — IMPRESSION OF ACTIVITY — SPUTUM

☐ MINIMAL — ☐ PROBABLY ACTIVE — ☐ POSITIVE

☐ MODERATELY ADVANCED — ☐ ACTIVITY UNDETERMINED — ☐ NEGATIVE

☐ FAR ADVANCED — ☐ PROBABLY INACTIVE — ☐ NO EXPECTORATION

☐ OTHER, SPECIFY: _____ — ☐ NOT EXAMINED

PATIENT WILL BE SUPERVISED BY: ☐ MYSELF ☐ OTHER, SPECIFY _____

DIAGNOSIS CONFIRMED BY X-RAY: ☐ YES ☐ NO

_____ M.D.

ADDRESS _____

Figure 6

Such reports are ordinarily routed through the local or county health department which forwards either the originals or duplicates to the State health office. In cities or counties without health departments, the physicians usually send the reports directly to the State office, and they are routed to field personnel in the area. In either situation, case reports ultimately reach the State Central Record System. The first case report may constitute the first entry in a State Central Record card.

• CLINIC REPORTS

Chest clinics are the best sources of information about the current medical status of patients under their supervision. Clinic records will supply data concerning last X-ray reading, sputum analysis, general recommendations and date due for re-examination. It should be possible to obtain such information

TUBERCULOSIS CLINIC REPORT

CLINIC _____ TOWN _____ COUNTY _____ DATE _____

CLINICIAN — CLINIC NURSES — Volunteers and Attendants

Name and Address	AGE	SEX	COLOR	Referred by	IF CONTACT, NAME OF SOURCE CASE	To Clinic New	To Clinic Old	DIAGNOSIS AND REMARKS (X-Ray Tuberculin Test, Pneumothorax, Recommendations)	Date Due Re-Exam.
					Total			Total Number at Clinic	

Figure 7

from all public clinics. Private clinics should also be encouraged to submit similar reports. In some instances it may be feasible to obtain a duplicate of the whole clinic record. However, this is apt to be much more detailed than necessary for the Record System. The suggested clinic report (figure 7), designed particularly for Record System and register use, contains only the information needed for these systems. The report from the local health department

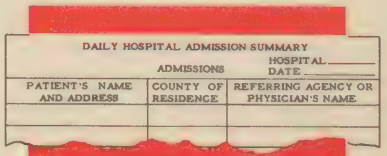
clinic should be first abstracted on the nursing records and register and then sent on to the State Central Record System. Clinics operated by the State sanatorium or State tuberculosis division may report directly to the Central State Record System. After entry of pertinent data on the record card, the report will be forwarded to the local health department.

• PUBLIC HEALTH NURSING REPORTS

Public health nurses are the health department representatives who have, through home visits, the most frequent contacts with tuberculosis patients. They are indispensable sources of information for the Record System. They can report change in address, change in medical supervision or examination of contacts. To standardize the information originating from the many nurses throughout the State, the interchange form (figure 5) suggested earlier is helpful. Pertinent material is transferred from the nursing record to this interchange form and routed to the local register and the State Central Record System. Nurses report whenever a visit reveals new information which supplements or changes that already recorded.

• HOSPITAL ADMISSION AND DISCHARGE REPORTS

The value to public health workers of hospital admission and discharge reports which indicate a change in the patient's medical supervision cannot be overemphasized. The use of the State Central Record System as a clearing center insures that sanatorium reports will be available to all concerned in time for effective use. Many sanatoria voluntarily notify health departments and private physicians who are to supervise cases after discharge. This clerical task for the sanatorium is simplified if reports are sent to one clearing center which forwards them to local health departments. The local health department wants to know about admissions and discharges as they occur. Prompt reporting of discharges is particularly important because it is immediately following discharge that the patient should be brought under public health supervision. At this time local



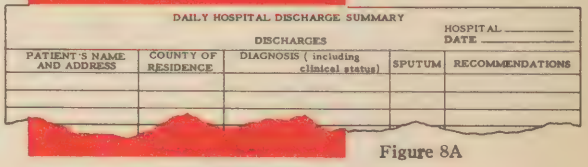
DAILY HOSPITAL ADMISSION SUMMARY

ADMISSIONS

HOSPITAL _____
DATE _____

PATIENT'S NAME AND ADDRESS	COUNTY OF RESIDENCE	REFERRING AGENCY OR PHYSICIAN'S NAME

Figure 8



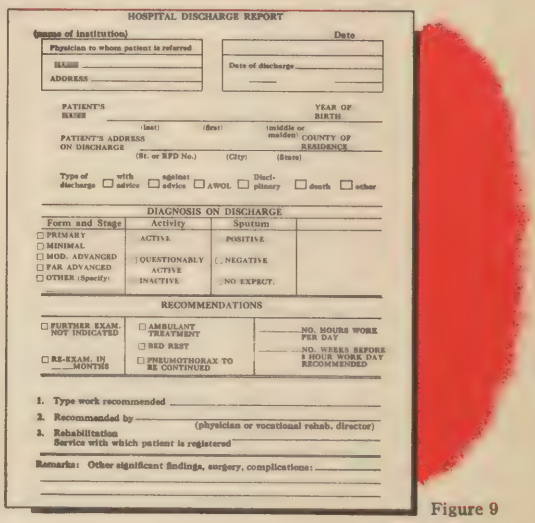
DAILY HOSPITAL DISCHARGE SUMMARY

DISCHARGES

HOSPITAL _____
DATE _____

PATIENT'S NAME AND ADDRESS	COUNTY OF RESIDENCE	DIAGNOSIS (including clinical status)	SPUTUM	RECOMMENDATIONS

Figure 8A



HOSPITAL DISCHARGE REPORT

(name of institution) Date

Physician to whom patient is referred

NAME _____
ADDRESS _____

Date of discharge _____

PATIENT'S NAME _____ YEAR OF BIRTH _____
(last) (first) (middle or maiden)

PATIENT'S ADDRESS ON DISCHARGE _____ COUNTY OF RESIDENCE _____
(St. or RFD No.) (City) (State)

Type of discharge ☐ with advice ☐ against advice ☐ AWOL ☐ Disciplinary ☐ death ☐ other

DIAGNOSIS ON DISCHARGE

Form and Stage	Activity	Sputum	
☐ PRIMARY	ACTIVE	POSITIVE	
☐ MINIMAL			
☐ MOD. ADVANCED	☐ QUESTIONABLY ACTIVE	☐ NEGATIVE	
☐ FAR ADVANCED			
☐ OTHER (Specify)	☐ INACTIVE	☐ NO EXPECT.	

RECOMMENDATIONS

☐ FURTHER EXAM. NOT INDICATED	☐ AMBULANT TREATMENT	_____ NO. HOURS WORK PER DAY
	☐ BED REST	_____ NO. WEEKS BEFORE 8 HOUR WORK DAY RECOMMENDED
☐ RE-EXAM. IN _____ MONTHS	☐ PNEUMOTHORAX TO BE CONTINUED	

1. Type work recommended _____
2. Recommended by _____ (physician or vocational rehab. director)
3. Rehabilitation Service with which patient is registered _____

Remarks: Other significant findings, surgery, complications: _____

Figure 9

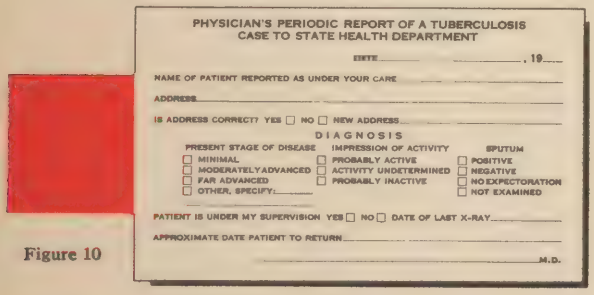
health officers and nurses are interested in diagnosis, sputum and reason for discharge, as well as in recommendations for the patient's care.

Daily admission and discharge reports (figures 8 and 8A) may be requested from State and large county sanatoria; weekly summaries from smaller sanatoria may be more practical. A detailed individual discharge report (figure 9) for each patient is preferable because after its entry in the State Central Record System it is easily forwarded to the proper local health department. Further, if a sanatorium uses a summary report containing information for a group of patients, it becomes necessary for the State office to copy for each local health department the information about its cases.

• REPORTS FROM PRIVATE PHYSICIANS

To learn the status of disease of all tuberculosis patients in the community, the health department needs a periodic report on those patients under the supervision of the private physician.

Many patients do not remain under the care of one physician; many do not return to any physician for



PHYSICIAN'S PERIODIC REPORT OF A TUBERCULOSIS CASE TO STATE HEALTH DEPARTMENT

DATE _____, 19____

NAME OF PATIENT REPORTED AS UNDER YOUR CARE _____

ADDRESS _____

IS ADDRESS CORRECT? YES ☐ NO ☐ NEW ADDRESS _____

DIAGNOSIS

PRESENT STAGE OF DISEASE	IMPRESSION OF ACTIVITY	SPUTUM
☐ MINIMAL	☐ PROBABLY ACTIVE	☐ POSITIVE
☐ MODERATELY ADVANCED	☐ ACTIVITY UNDETERMINED	☐ NEGATIVE
☐ FAR ADVANCED	☐ PROBABLY INACTIVE	☐ NO EXPECTORATION
☐ OTHER, SPECIFY _____		☐ NOT EXAMINED

PATIENT IS UNDER MY SUPERVISION YES ☐ NO ☐ DATE OF LAST X-RAY _____

APPROXIMATE DATE PATIENT TO RETURN _____

_____ M.D.

Figure 10

care. Although the health department does not give direct medical care to all tuberculosis patients, its responsibility is to make sure that they are under some continued and current supervision. It is recommended that, if possible, current status on this group of patients be determined at 6-month intervals. The State tuberculosis division should initiate the queries which are directed to the local health departments. They in turn secure the information from the private physicians. The local health department may do this by means of a form such as figure 10, a telephone call or a nurse's visit to the private physician.

• LABORATORY REPORTS

Sputum examinations may be done in State, local or private laboratories, and ordinarily it is possible to obtain a report of each examination. Both positive and negative sputum reports should be routed to the Central Record System. The positive sputum report is of special significance to the health department, as it indicates a possible danger to the community and an active case requiring medical care. The negative report yields important information concerning the whereabouts of cases and their current medical supervision. Often, presumably lost cases are located through information contained on sputum reports. Reports originating in the laboratory of a city or county health department are routed to the local health department and then to the State Central Record System. However, reports originating in the State or sanatorium laboratory are routed through the State Central Record System first.

• DEATH REPORTS

In order that the Record System be maintained as a current file, deaths of all tuberculosis cases must be reported to it. The State vital statistics division can supply much of the necessary information. Copies or

transcriptions of the original death certificates are sent to the Record System. For future reference and study they should be kept in a permanent file in the State tuberculosis control division. Not only death certificates on which tuberculosis is assigned as the primary cause, but all certificates mentioning tuberculosis should be included. Search for death certificates mentioning tuberculosis should be conducted routinely each month by personnel of the vital statistics division. These certificates must be selected by reading or scanning all causes of death on all certificates. Death certificates for residents who have died in other States are also available in the vital statistics division and special request should be made to the State registrar to secure them. In addition, there will be instances when tuberculosis is not mentioned as a cause of death on the certificate of a patient previously reported as a tuberculosis case. When local health departments obtain knowledge of such a death they should forward the information to the State Central Record System. The State tuberculosis division will, for its part, inform local health departments of all tuberculosis deaths among the local residents, particularly those occurring outside the local area.

• OTHER REPORTS

Any additional case information received in the State tuberculosis division should be cleared with the Record System. Interstate reciprocal reports, Selective Service referrals, reports on mass survey suspects and general correspondence contain current data on location of patients and their medical and supervisory status. These reports are usually directed from the primary source to the State tuberculosis division, and according to the general plan for routing, they are then forwarded to local health departments for action. As a general procedure all correspondence, reports and records in the State tuberculosis office are directed to the Record System clerk who abstracts pertinent information and routes the report.

6 HOW ARE INITIAL CASES SELECTED?

GENERAL CONSIDERATIONS

The planning of a State Central Record System raises two questions: Which cases shall be included in the Record System? To what extent will they be investigated? A State Central Record System could be started with only newly reported cases if no file of previously reported cases can be obtained at the start.

Previously reported cases under the direct supervision of health departments could be added as nursing or clinic reports are received. Actually, it seems desirable to start with all cases reported in recent years, in order to profit from past case reporting. The extent of investigation of previously reported cases will be determined by number and quality of personnel for clearing activities, as well as by the availability and kind of information which may be found in sanatoria, clinics and health departments.

The official case reports for the years selected will include not only all known living cases but cases dead, lost, moved out of the State, healed, or in no need of supervision. To eliminate those cases no longer in need of medical supervision is one purpose of initial clearing operations. By the same operations it is also possible to obtain a certain amount of intermediate and current case history on those cases which will constitute the State Central Record System.

A well-staffed State office with an adequate budget could arbitrarily elect to investigate all cases reported during the last ten years. This group would include almost all known cases in the State. But much of the work would be unprofitable because a high percentage of cases will be found to be dead, lost, moved out of the State or not in need of supervision. On the other hand, if only new cases or those reported within one year are included, considerable time must elapse before the Record System gives a complete picture of the known case load. Many States will be able to investigate morbidity reports received during the past several years. Few will be able to go back as far as ten years, and few will wish to start with new cases alone.

A conservative yet practical procedure is the investigation of cases reported in the last five years. Investigation should cover all cases for whom some

report has been received in the stated period, even though they may have been originally reported many years before. It will be found that a five-year group will include most of the known active cases in any area. Missed cases will be added to the Record System as additional reports are received through any of the channels set up for reporting.

In Kansas and Oregon, after perfunctory investigation through readily available sources, cases were classified into three categories:

1. Cases eliminated as lost, moved out of State, dead, non-tuberculous or not significant for follow-up according to State policy.
2. Cases known to be under some medical supervision or in need of medical care. These cases will constitute a large part of the final Record System.
3. Cases whose supervisory and medical status is unknown. This group may be held in a separate file pending a gradual yet more intensive investigation by local health departments.

At the close of initial clearing operations for Kansas in November 1945, there was the following disposition of cases originally reported during the years 1940 to 1944:

November 1945—Disposition of Cases Originally Reported in Kansas from 1940-1944.

Year of first case report	Total reports	Cases remaining in Record System.				Cases excluded from Record System	
		Last report received within past 12 months		Last report received over 1 year previously		Dead, arrested, moved out of State, lost, or not significant for follow-up	
		Number	Percent	Number	Percent	Number	Percent
Total	3,688	733	19.9	602	16.3	2,353	63.8
1940	757	86	11.4	125	16.5	546	72.1
1941	829	98	11.8	145	17.5	586	70.7
1942	698	129	18.5	131	18.7	438	62.8
1943	697	157	22.5	109	15.6	431	61.9
1944	707	263	37.2	92	13.0	352	49.8

Investigation showed that 72 per cent of the initial 1940 cases were closed as compared with 50 per cent of the 1944 cases. Furthermore, there had been a report within the last 12 months for only 11 per cent of the cases first reported in 1940, compared with reports for 37 per cent of the cases originally reported in 1944.

PRELIMINARY STEPS IN CLEARING

Because it is difficult to transfer information in its proper chronological sequence from the many sources directly to the final Record System card, the mechanics of clearing are simplified by the use of an intermediate record or worksheet patterned after the Record System card. The worksheet can be multilithed or mimeographed as soon as the final draft of the Record System card is approved. A worksheet is started for each case reported by official morbidity report in the selected time period. In the process of clearing with different sources, supplementary information will be added to each worksheet. Finally, after duplicate reports are combined and entries are arranged in chronological sequence, the Record System card is prepared by editing the contents of the worksheet and transcribing them to the card.

SEARCHING RECORDS

1. DEATH REPORTS

Elimination of worksheets for deceased cases should be the first operation in clearing. Much fruitless searching will thus be avoided. The size of this operation will vary among States, since some State tuberculosis divisions may have already indicated the fact of death on the case reports.

One way to clear for deaths is to match the worksheets against the index of deaths in the State vital statistics division. This index will normally include not only deaths occurring in the State but deaths of residents occurring anywhere in the United States.

2. SANATORIUM RECORDS

As sanatorium and out-patient clinic records contain significant material for many cases covered by the Record System, it is advisable to transport all the worksheets to each sanatorium in turn, in order to check against sanatorium records. State or county sanatoria will usually grant permission for clearance activities. Privately owned or Federal sanatoria may allow inspection of their records; if not, information may be obtained through written query.

The worksheets should first be compared with a master index of the sanatorium and records pulled for Record System cases which have been hospitalized. A list of all patients in the sanatorium and under sanatorium clinic care should be checked to ascertain whether there are any patients under treatment for whom there are no worksheets. For these, worksheets will be added. In some States all sanatoria may be under one governing body, such as a State Board of Health or Department of Public Welfare, which may have one central file of case abstracts. Under such a system the task of clearing cases with sanatorium histories will be greatly simplified.

3. LOCAL HEALTH DEPARTMENT RECORDS

Public health nursing records

Public health nursing records will be the main source of information for clearing. The worksheets, sorted according to the city or county of residence of patient at the time of last report, can be taken to the local health department. There they can be checked with family folders or other nursing records. Three purposes will be served in this clearing operation. First, a certain percentage of the cases may be eliminated because of death, change of residence to another State or because the patient no longer needs supervision. Second, current medical status, supervision and other information may be added to the worksheets. Third, additional active cases under

public health supervision will turn up. Cases in this third group may not have been previously reported or may have been reported before the time interval selected. A Record System worksheet will be prepared for each of these patients.

The amount of information to be gained from the nursing records of course will vary with the extent of development of local tuberculosis control activities and particularly with the amount of nursing service for tuberculosis. Full-time city and county health departments will have records with detailed histories of medical and supervisory status and information on examination of contacts. On the other hand, in counties and cities with inadequate nursing staffs, data in the nurses' records may be scanty. In fact, little more may be ascertained than the patient's place of residence.

The family folder or case record for tuberculosis may not be the only source of information. Inquiry should be made concerning all tuberculosis records in the local health department. Other possible sources may be individual tickler files, correspondence and unfiled reports. The review of nursing records should be carried out with as much personal assistance as possible from the nursing staff. Due to current shortage of nursing and clerical personnel, many health department nursing records may be incomplete, and much pertinent material needed for clearing will be secured through discussion with the public health nurses.

Care must be exercised to abstract from nursing records only that information which defines current supervisory and medical status of the patient and those details of the case history which are important for future supervision and follow-up.

Clinic records

Several types of chest clinics may be in operation in a State, and they will generally allow inspection of their records. The entire health department clinic file should be checked against the worksheets. The same procedure should be followed for private clinics, but if this is impossible, information can be obtained through correspondence with the clinic director.

4. REPORTS FROM PRIVATE PHYSICIANS

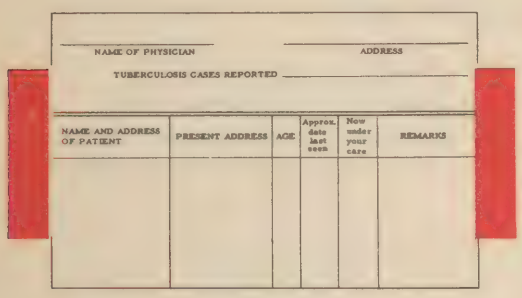
Determination of current status of patients last reported under the care of private physicians should be the last step in clearance to avoid querying physicians about cases whose status could have been learned from other sources. The proportion of cases for whom the private phyisician is the only source of current information varies widely from one community to another.

To learn whether a patient is still under the supervision of the physician who last reported the case is a difficult but necessary task. Investigation will show that a high percentage of the old reported cases are under no known supervision. This indicates the need for more careful and current follow-up. Some of these cases should be reopened for health department service, some should be under sanatorium or clinic care and others may not be in need of public health supervision.

A personal visit by the health officer or nurse to the private physician, a telephone call or a mailed query are the principal methods of obtaining information promptly. The first two may be possible in some city or county health departments and will be effective. Mailed queries may be the only means of reaching some physicians. Whenever the mailed query

is selected as the method, it should be signed and sent by the local health officer.

The content of the query form (figure 11) will greatly influence its usefulness; if too much is asked, the returns are liable to be poor. The present location of the patient and the type of his medical supervision is the information most wanted. Additional questions can be added if full reporting is anticipated. It will often be found that a number of cases for which there are no previous morbidity reports will be reported at this time. In counties with full-time health departments and established tuberculosis control programs, where the medical societies are in full accord with the program, a rather detailed questionnaire may be used. In addition to information on supervision, diagnosis on last X-ray and results of sputum examination may be requested. In a county with neither a health department nor a nursing service, it is doubtful whether the query should request anything more than type of current medical supervision.


NAME OF PHYSICIAN _____ ADDRESS _____

TUBERCULOSIS CASES REPORTED _____

NAME AND ADDRESS OF PATIENT	PRESENT ADDRESS	AGE	Approx. date last seen	Now under your care	REMARKS

Figure 11.

To show the results of querying physicians in counties without full-time health departments, the following experience in Kansas is cited. Letters were mailed to 239 physicians requesting information about 515 cases. Each physician received a letter accompanied by a query form listing cases last known to be under his supervision. The 64 percent of the physicians who answered the queries returned information on 316 cases, or 61 percent of the original 515 cases. Of the 316 cases, 21 percent were reported to be still under the supervision of the physician to whom the query was sent, 14 percent were reported to be under the supervision of another physician or hospital, totaling 35 percent under known supervision. In addition, 19 percent were known to be either arrested or dead. The remaining 46 percent were not known to be under medical supervision.

RESULTS OF CLEARING

After worksheets have been cleared with all sources of information and those for cases needing no public health supervision are eliminated, those remaining will represent cases under medical care or in need of public health supervision according to local policies of case management. Analysis of the latter group will indicate that the current status of many cases is not known. If "current" means that any report on a case has been received within one year, information in the Kansas inventory was 68 percent current after perfunctory clearing; in 32 percent of the cases, there had been no report for over a year. On the same basis, 72 percent of the inventory information in Oregon was current. It is recommended that the section in any State Central Record System corresponding to the 32 percent in Kansas and the 28 percent in Oregon be included in the Record System but segregated or signaled for later gradual investigation by local or State field personnel.

After all clearing operations are completed, information will be transcribed to the permanent Record System cards.

SPECIFIC PROCEDURES FOR INITIAL CLEARANCE OF CASE RECORDS

A. PRELIMINARY

1. Prepare a work sheet from the case report file in the tuberculosis division for each case reported within the selected time interval.
   Copy all pertinent information:
   a. identifying data
   b. diagnosis
2. Arrange work sheets in alphabetical sequence by case name.
3. When other cases are found in the process of searching, prepare a worksheet for each additional case. In clearing these worksheets with various sources such as sanatoria and health departments, *search for* tuberculosis *cases* in such files for which there are *no worksheets*. There will ordinarily be many of these.

B. SEARCHING RECORDS

1. Deaths
   a. check all work sheets against State death index.
   b. on work sheet enter date and fact of death.
2. Sanatorium records
   a. Hospital case histories
      (1) Check case histories against work sheets
      (2) Enter on work sheets
         dates of each admission
         diagnosis on admission
         diagnosis for patients in sanatorium at present
         date of each discharge
         reason for each discharge
         diagnosis on discharge
         sputum on discharge
         present medical supervision of discharged patient
   b. Sanatorium clinics
      (Out-patient records may be found with sanatorium case histories)
      Enter on work sheets
         date of most recent clinic visit
         diagnosis at last visit
         last recommendations (treatment, supervision)
         date, results of most recent sputum examination

Rearrange worksheets alphabetically by local health department jurisdiction

3. Local Health Department records
   a. Public Health Nursing records
      (1) Check worksheets with public health nursing records, family folders, correspondence, tickler files
      (2) Enter on worksheet
         present address of patient
         present medical supervision (name of private physician, clinic or sanatorium)
         date of last medical supervision
         dates of each sanatorium admission and discharge, reason for discharge and name of sanatorium

whether patient is under public health nursing supervision
date of last nursing visit
changes in name, marital status, occupation, place of work
any items of identification not previously known

b. Clinic records
(1) Check clinic files against worksheets
(2) Enter on worksheet
date of first clinical examination
diagnosis at first clinical examination
date of most recent clinic visit
diagnosis at most recent clinic visit
last recommendations (treatment, hospitalization, supervision)
dates and results of recent sputum report

c. Laboratory reports
Check positive sputum reports against worksheets

d. Other records in local health department
Mass X-ray file for suspects, Selective Service rejectee file, consultation films, correspondence files.

4. Private physicians
a. Query by written form (fig. 11 p. 33), letter, telephone, or nursing visit for information on patients last reported under physician's supervision
b. Enter pertinent data on worksheet

5. Other sources of information
Tuberculosis Associations
Office of Vocational Rehabilitation
Social Service Organizations
Check worksheets with these sources for additional information such as:
location of patient
medical supervision
other agencies interested in family

C. FINAL STEPS

1. Review worksheets. Eliminate worksheets for:
a. cases dead, lost, moved out of State
b. cases not in need of supervision according to State policy

2. Prepare master index cards (figure 12 p. 38) for all remaining worksheets. File cards in one alphabetical sequence. (Keep worksheets in county groups for next step.)

3. Prepare a Record System card for each worksheet
a. Edit, rearrange and transcribe pertinent data from worksheet to Record System cards. Keep in county groups
b. Arrange Record System cards in permanent current file by county.

7 HOW IS A STATE CENTRAL RECORD SYSTEM INSTALLED AND MAINTAINED?

PERSONNEL

Supervisory and clerical personnel responsible for installation and maintenance of the State Central Record System must be carefully selected. In addition to being sufficient in number, personnel must be intelligent, well-trained and aware of the objectives of the State and local tuberculosis programs as well as the role of the State Central Record System in those programs.

Supervisory Personnel: Supervision of the Record System requires an understanding of the whole tuberculosis program, including techniques of case finding, significance of case management and treatment, and knowledge of the interaction of all agencies concerned with the total tuberculosis problem. Ideally, the Record System should be under the immediate supervision of the director of the tuberculosis control division, for it is he who will be using it as an administrative tool. However, since it will be impossible in most States for the director to assume this added duty, it is recommended that this responsibility be delegated to a record analyst. The record analyst would not only supervise maintenance and use of the Record System, but would also be responsible for coordination of field reports and outside records. Additional duties of this position might entail the preparation of charts, tables and statistical analyses from the Record System and other sources. Most State civil service or merit systems will have a position classification for a statistician or a record analyst. In selecting such a person, training in statistics, sociology, biology and, if possible, experience in the fields of public health or medical statistics should be stressed. If no position classification exists, one should be developed in cooperation with the State civil service or merit system. A sample job description may be obtained from the United States Public Health Service, Tuberculosis Control Division, Washington, D. C.

Clerical Personnel: Since the members of the clerical staff must appreciate the purpose of the Record System and use judgment and discrimination in interpreting many types of medical records, they must be of the highest caliber. They should be capable of efficient and exact performance in detailed work.

The need for Record System personnel will vary from State to State. Special activities such as industrial surveys and other mass radiography projects will influence the amount of work of the State Central Record System. The number of reports flowing to the Record System will, in large part, depend on the amount of services rendered by State, local and private agencies. Of course, the prevalence of tuberculosis (as evidenced by morbidity and mortality rates) will also have a direct influence on the volume of clerical work. In Kansas and Oregon, for example, the size of clerical staff needed for work on the Record System varied. Kansas, with a population of 1.7 million, a mortality rate (1944) of 20 per 100,000 population, and an annual case reporting rate (1944) of 40 per 100,000 population, requires the services of a record analyst and one full-time clerk. Oregon, on the other hand, with a population of 1.2 million, an annual mortality rate of 25 per 100,000 population, and an annual case reporting rate of 56 per 100,000 population, requires a permanent staff of one record analyst and two clerks.

During the installation of the Record System, it will be necessary to employ temporary or part-time clerks who will not be needed later. Great care should be exercised in their selection. It may be possible to obtain some temporary personnel by borrowing within the tuberculosis division of the health department. Personnel is, without doubt, the most critical factor in the success of the Record System plan. Personnel attitudes, interests and abilities will directly determine the effectiveness of the Record System in the tuberculosis control program.

DEFINITION OF POLICY

The State Central Record System has been defined as a system of records for maintaining a current summary of pertinent medical and public health data of known tuberculosis cases and suspects which according to health department policy require some type of supervision. Reports from many sources will be accepted, rejected or abstracted uniformly only if instructions and definitions are clearly stated. Record System personnel need standards in order that entries and procedures will be uniform over a period of years. This chapter, a working manual for the record analyst, is devoted to definitions and specific directions for procedures involved in the maintenance of the Record System.

Policy regarding current and closed cases: The current file is a file containing a current record for every known case or suspect considered "administratively active" by the head of the State tuberculosis office. "Administratively active" cases are those under current medical supervision or in need of medical supervision as defined by State and local policies of case management. The definition must be made through agreement with the nursing division, local health department and sanatoria directors. These policies are generally determined by the extent of the State and local tuberculosis programs and the availability of facilities for service. There undoubtedly will be considerable variation among the States

in definitions of "administratively active" or current cases. For example, in a State with limited local health organization and a scarcity of public health nurses, only the presumably clinically active cases will be retained in the current file. Another State with more extensive development of local health services may retain in the current file known arrested cases, cases reported as clinically inactive and suspects.

Since all case records will eventually be discharged from the current file it is necessary to maintain a file for closed case records. This will include cases defined as not administratively active, such as dead, lost or moved out of the State. It may be termed a "closed file" and must be kept for two reasons: (1) as a source of reference and statistical data, and (2) to make case records available for transfer into the current file for those which may again become administratively active, such as cases returning to the State, lost cases which are found and cases with reactivation of the disease.

ORGANIZATION OF FILES

To make information available for both local and State use, 3 files will be necessary.

1. The *current file* contains cards on all administratively active cases.

   Record System cards are grouped in a section for each county or other local health jurisdiction.

   Record System cards are arranged alphabetically within each county section.

2. The *closed file* contains cards for all cases considered administratively inactive.

   The cards are arranged by county, as in the current file, or by alphabetical sequence.

3. The *master index* contains a card for every case record included in the current file and closed file.

   Arrangement of the current file by county sections, plus the existence of a closed file, requires the maintenance of a master index which will show where the Record System card is filed.

   The cards are arranged in one alphabetical sequence for entire State.

Essential items on the master index card are:

Name
Location of Record System card—in the current or closed file.
County or city section in which the card is filed.
Additional identifying information such as year of birth, marital status, sex and color to assist in locating records and avoiding duplication.

Figure 12 shows that the card for Mary Doe may be found in the "Jackson County" section of the current file.

Master Index card

Name	Year Birth	Sex	Color	Mar. Status	County
Doe, Mary	1919	F	W	M	Jackson

Date Closed _____
Reason Closed _____

Figure 12

Master Index Card for Showing Closed Case

Name	Year Birth	Sex	Color	Mar. Status	County
Doe, John	1921	M	W	S	Jackson

Date Closed 5-9-46
Reason Closed moved out of State

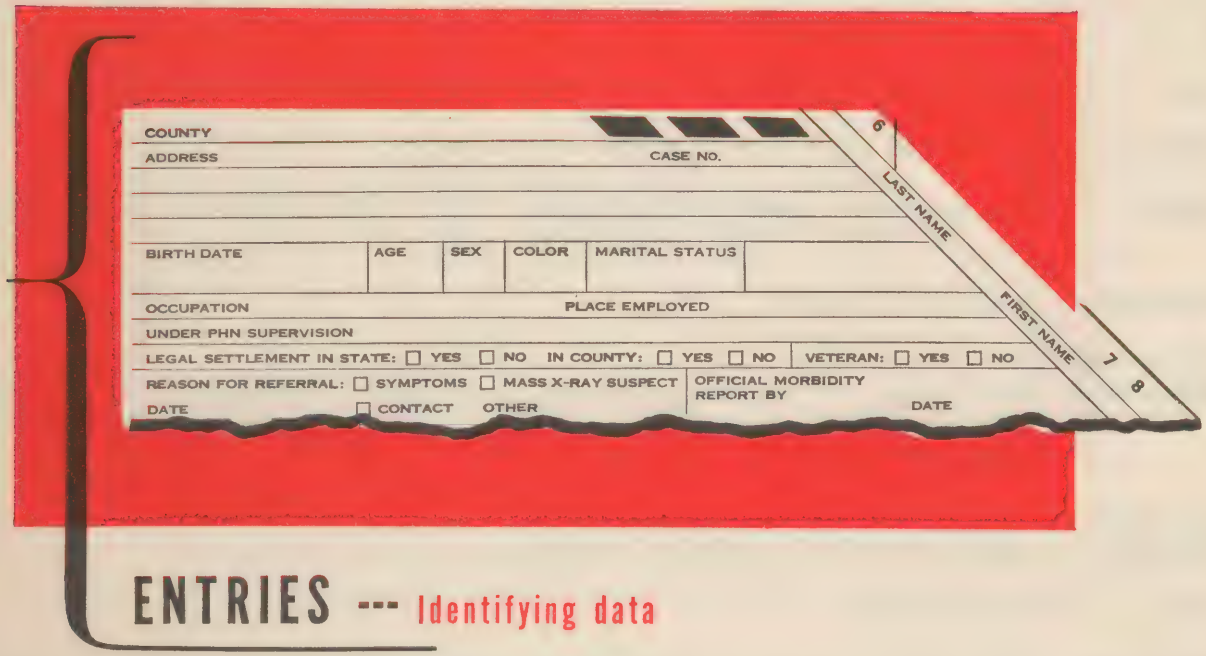
Figure 12a.

Figure 12A shows that the card for John Doe may be found in the closed file:

INSTRUCTIONS FOR FILLING IN THE RECORD SYSTEM CARDS .

Whenever a first report is received, a card is prepared and inserted in the current file. Information entered from first report should be typewritten. Subsequent entries may be in longhand.

Instructions for filling out the cards are:



ENTRIES --- Identifying data

Name . . . . . Last name first in capital letters, followed by first name and middle name or initial. For a married woman enter also maiden name when available.

County . . . . . County of residence.

Number . . . . . A Record System number can be assigned to each new case reported. A consecutive series, beginning with number 1, may be maintained for each county.

Address . . . . . Present home address. Subsequent addresses will be added. After each change of address, indicate the date. The last entry is present address. Admission to a hospital (other than a mental hospital) does not constitute a change in address.

Birth date . . . . . Enter month, day and year. If only age is given, compute and enter year of birth.

Age . . . . . At the time the case is first reported, enter age at last birthday.

Sex . . . . . M or F for male or female.

Color . . . . . W for white, N for negro. Designations for other groups should be written out as "Chinese," etc.

Marital status . . . Write in full: single, married, widowed, divorced, separated.

Occupation . . . . Enter description of specific job: janitor, teacher, miner, carpenter, bookkeeper, student, housewife, etc. DO NOT CONFUSE WITH "place employed."

Place employed . . Enter name of company.

Under public health nursing supervision . Enter "yes" or "no." If there are several agencies in the community, specify whether supervision is from local health department, school, or private nursing organization. State reason for no supervision.

Legal settlement or legal residence . . . Check correct block, according to State law.

Veteran . . . . . Check yes or no.

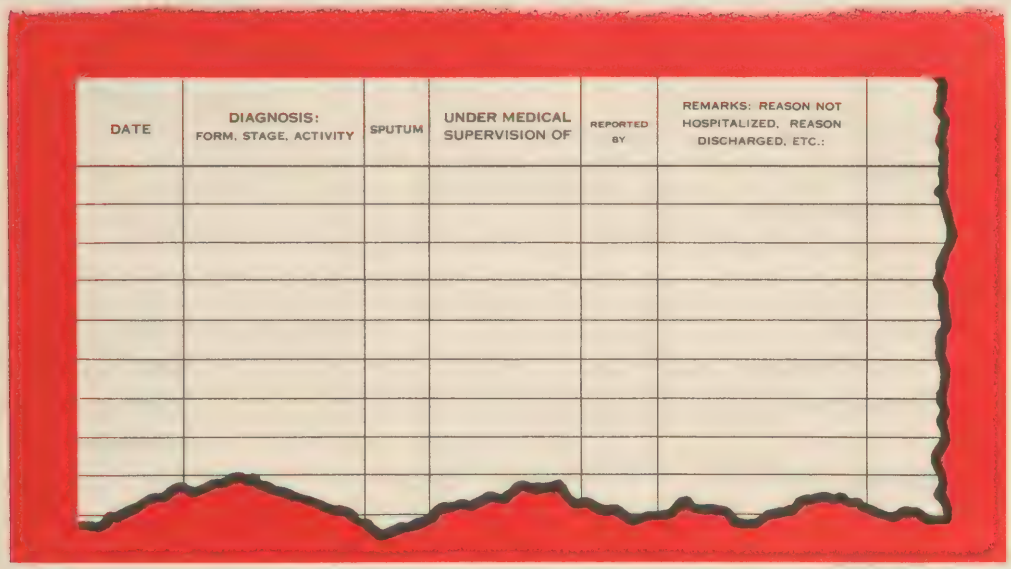
Reason for referral . What prompted the first examination for tuberculosis? Check proper block for reason.

Date . . . . . Enter month and year of referral.

Official morbidity report by . . . . . Specify by name the private physician, clinic, sanatorium, hospital or other source first submitting an official morbidity report.

Date of report . . . Enter date of first official morbidity report.

ENTRIES --- Current Status



DATE	DIAGNOSIS: FORM, STAGE, ACTIVITY	SPUTUM	UNDER MEDICAL SUPERVISION OF	REPORTED BY	REMARKS: REASON NOT HOSPITALIZED, REASON DISCHARGED, ETC.:	

Date . . . . . From report of private physician, clinic or hospital, copy *date of* examination. (i.e., show date of examination—not date information is recorded). When the date of examination is unknown, enter date report reached Record System and indicate by an asterisk. Make entries in chronological order.

Diagnosis . . . . Use the following abbreviations for diagnosis:

Form of disease
- Pulmonary . . . . . Pulm
- Primary . . . . . Prim
- Other forms . . . . . Specify form using abbreviations

Stage of disease
- Minimal . . . . . Min
- Moderately advanced . . . . . Mod Adv
- Far advanced . . . . . Far Adv

Activity
- Active . . . . . Act
- Questionably active . . . . . Quest Act
- Quiescent . . . . . Quies
- Apparently arrested . . . . . App Arr

Arrested ..... Arr
Apparently cured ..... App Cured
Inactive ..... Inact
Healed ..... Heal

Tuberculosis ..... Tbc
Suspect ..... Susp
Not stated ..... N S
Questionable ..... ?

Other abbreviations

Probably ..... Prob

Sputum . . . . . Positive ..... Pos
Negative ..... Neg
No expectoration ..... N E

Medical supervision . Clinic ..... Name of chest clinic
Hospital ..... Name of institution and admitted or discharged
Private physician ..... Name of physician and "MD"
Out-of-State ..... Specify supervision as above plus name of city and State
Health department ..... H D

Reported by . . . . Specify:

Clinic ..... Clin
Death certificate ..... D Cert
General hospital ..... Hosp
Interstate referral ..... Int Ref
Institution other than tbc sanatorium ..... Inst
Mass X-ray ..... Mass X

Med. discharge from Armed Forces ..... A F
Official morbidity report ..... Morb
Private physician ..... Phys
Public health nurse ..... PHN
Tbc sanatorium ..... San
Veterans' hospital report ..... Vet
Laboratory report ..... Lab

Remarks . . . . . In the Remarks column enter in abbreviated form all data not applicable to the other columns but important for the supervision of the case, such as: application made for hospitalization, reason discharged, complications, recommendations for treatment, surgery, pneumothorax, discontinuance of pneumothorax.

ABBREVIATIONS

Standard abbreviations in general use in your State may be entered in the following space:

COUNTY Allen

ADDRESS 1320 Cleveland Ave., Morristown, Md CASE NO. 123
906 Harris Street, Morristown, Md.

6 JONES LAST NAME Martin J. FIRST NAME 7 8

BIRTH DATE	AGE	SEX	COLOR	MARITAL STATUS
10/19/22	20	M	W	Single

OCCUPATION Laborer PLACE EMPLOYED Baker Rolling Mills

UNDER PHN SUPERVISION yes

LEGAL SETTLEMENT IN STATE: [X] YES [ ] NO IN COUNTY: [X] YES [ ] NO VETERAN: [ ] YES [X] NO

REASON FOR REFERRAL: [ ] SYMPTOMS [X] MASS X-RAY SUSPECT [ ] CONTACT [ ] OTHER
DATE 1/16/43

OFFICIAL MORBIDITY REPORT BY A.B. Smith, M.D. DATE 1/27/43

DATE	DIAGNOSIS: FORM, STAGE, ACTIVITY	SPUTUM	UNDER MEDICAL SUPERVISION OF	REPORTED BY	REMARKS: REASON NOT HOSPITALIZED, REASON DISCHARGED, ETC.	MONTH NEXT REPORT IS DUE
1/16/43	Tbc Mod adv			Mass X		
1/27/43	Mod adv act	Pos	A.B. Smith, M.D.	Morb	Recommend San	
2/18/43	Mod adv act	Pos	Adm Sunray San	San		1 F
6/14/43	Mod adv Quies	Neg	Disch Sunray San	San	A M A with pneumo	
6/21/43	Mod adv Quies	Neg	A B Smith, MD	Morb	Referred to H D	M
9/14/43	Mod adv act	Pos	Readm Sunray San	San		
10/7/44	Mod Adv arr	Neg	Disch Sunray San	San	Referred to State Rehab	A
10/14/44	Pulm arr	Neg	Allen Co H D	H D	Pneumo	
5/11/45	Pulm arr	Neg	Allen Co H D	H D	Pneumo	2 M
12/4/45	Pulm arr	Neg	Allen Co H D	H D	Pneumo	J
						J
						3 A
						S
						O
						4 N
						D
						M
						5

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TUBERCULOSIS RECORD SYSTEM—FORM 1, REV 5-46

16—46500-8

Figure 13.

Sample State Central Record Card

SIGNALING

One of the advantages emphasized for selecting vertical visible (or offset visible) equipment is that the use of signals on the visible margins of the cards facilitates a quick inspection of important summary information. While it is possible to summarize a large part of the contents of the Record System cards by marginal signals, it seems advisable to limit signaling to information needed for evaluation and maintenance of the Record System. Except for periodic counts of summary material, it is not recommended that signals be used for tabulations from the cards. The function of the signal is to assist the staff in management; it indicates that some particular action must be taken. The suggested plan may be too elaborate or too inclusive. Each health department will make its own selection of items to be signaled. When local registers are established, reduction in detail on the State Record System can be realized. Statistics are more accurately and easily compiled by hand sorting or machine tabulations.

Specific systems of signaling must necessarily vary among States in order to conform with existing policies and organization of services for tuberculosis. Certain important items which will not change could be permanently signaled by using a different color card or by stamping a signal on the card.

For example, in States where race divisions are necessary, one color card might be used for white, a different color for negro—or else these two races could be designated by stamping a permanent signal on the margin of the card for each non-white patient.

Likewise all cases found through mass X-ray might be designated by a different color card or by a stamped signal on the margin.

The following is a suggested plan for using marginal signals. According to this plan, signals are used for three broad purposes (figure 13).

1. SUPERVISION: Certain aspects of the supervisory status of cases are important for signaling. They are:

a. Cases hospitalized
b. Presumably active or positive sputum cases not hospitalized
c. Cases under no medical supervision
d. Cases under clinic supervision

2. MAINTENANCE: Tickler signals are useful in the mechanics of operating the Record System. They place emphasis on certain cases requiring current action from the record analyst. These signals are reminders which guide maintenance. For example, the signal may indicate:

a. The month that a report on current status is due
b. The month that additional information is due

3. REFERENCE: Signals are of value for designating special groups of cases significant for further study or statistical analysis.

a. Suspects
b. Newly reported cases
c. Case first reported through mass X-ray

SPECIFIC SIGNALING PLAN

For signaling purposes the Record System card may be divided into the eight positions represented as follows:

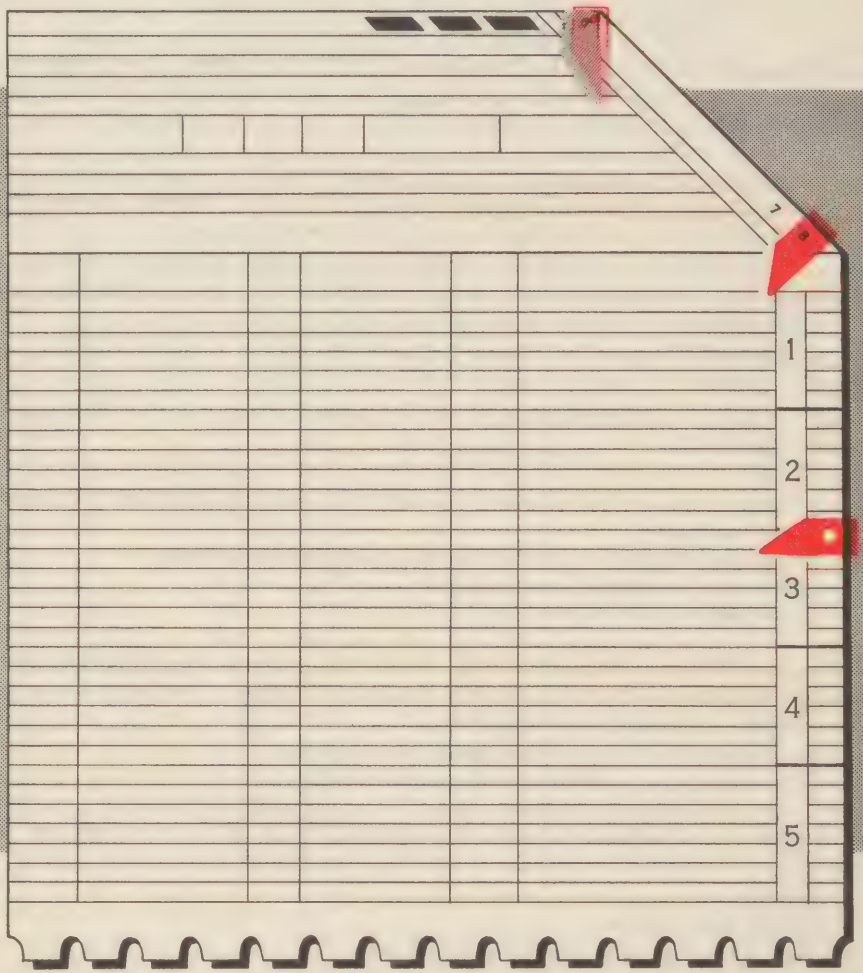


Figure 13A

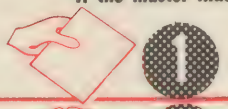
MEANING OF SIGNAL	POSITION	COLOR
Supervision and status of cases:		
Case in sanatorium	8	Blue
Case in other institution	8	Green
Positive sputum, case in the home	8	Red with hole
Sputum unknown, case in the home	8	Red
Sputum negative, case in the home	8	Brown
Case under no supervision	7	Black
Case under clinic supervision	7	Pink
Maintenance of Record System		
Month report or query return is due		
January (1st quarter)	1	Red
February (1st quarter)	1	Blue
March (1st quarter)	1	Pink
April (2nd quarter)	2	Red
May (2nd quarter)	2	Blue
June (2nd quarter)	2	Pink
July (3rd quarter)	3	Red
August (3rd quarter)	3	Blue
September (3rd quarter)	3	Pink
October (4th quarter)	4	Red
November (4th quarter)	4	Blue
December (4th quarter)	4	Pink
Reference to special groups		
Suspects or probable cases		
Positive sputum—no case report	6	Red
Mass X-ray suspect	6	Brown
Any other suspect not reported	6	Green
Probable case, official morbidity report due	6	Blue
New case reported within calendar year	5	Pink
Reported case first discovered by mass X-ray	5	Brown*M
Reported case first discovered by clinic	5	Green*C

*Any item which remains constant may be given a permanent signal by use of a rubber stamp and colored stamp pad ink.

GENERAL DIRECTIONS FOR MAINTENANCE OF STATE CENTRAL RECORD SYSTEM FOR TUBERCULOSIS: CURRENT FILE, CLOSED FILE, AND MASTER INDEX

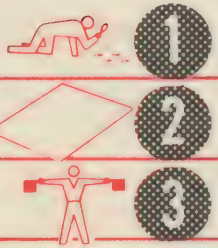
FOR ALL REPORTS:  **Check each incoming report against the master index to learn whether a Record System card exists.**

If the master index indicates that there is a card:



1. pull it from the current or closed file
2. enter new information
3. signal
4. refile card
5. route information to proper persons

If the master index indicates no card:



1. search other possible sources of information in the office—(old case index, mass survey file, correspondence)
2. originate a card from the new report, adding pertinent data previously reported
3. signal

4 prepare master index card

5 file card in proper place—if administratively active in the current file, otherwise in closed file

6 file master index card

7 route information to proper persons

For transfer of cards between current and closed file:

1. **When administratively active case is closed:**

A transfer card from current to closed file

B enter on master index card, date and reason for closing

2. **When closed case becomes administratively active:**

A transfer card from closed file to current file

B bring master index card up to date

For change of address:

1. **When a report indicates that a person has moved:**

A enter new address on Record card

B

if new address changes county of residence within the State,
move card to section for county of new residence. Enter name of new county on master index card.

C

if new address is out of State,

1. transfer card from current file to closed file
2. make proper entries on master index card
3. prepare interstate reciprocal report form and forward to new State health department

For querying:

1

Whenever information reaching the State Central Record System is incomplete or inconsistent, query the source of the report for additional information.

2

Signal the card to denote the month in which a reply is due.

3

When the tickler signal shows that more than 6 months has elapsed since the last report on a current case, or that a report was due within the preceding month and not received, query the local health department or local physician, or nurses and clinics in counties with no health departments.

For routing information:

Information reported to the Record System must be forwarded to the health department of the person's county of residence except when the report originated with or was previously routed through that department. The only reports which must be kept in the State tuberculosis division are the official morbidity reports and photostats of certificates of death from tuberculosis. All other material should be adequately abstracted on the Record System card and should no longer be needed for reference. Some reports will be forwarded to local health departments. Others coming to the State Central Record System from local health departments can be destroyed.

SPECIFIC REPORTS WHICH FLOW TO THE STATE CENTRAL RECORD SYSTEM AND METHODS OF HANDLING

Utilizing the foregoing general policies and instructions for procedure, the staff will handle specific reports in the following manner:

1. Official morbidity reports.

A—First report

1. Enter on new card all available information:

Name	Sex	Medical supervision
Address	Mar. Status	Sputum
Age	Diagnosis	

2. Signal month investigation report is due from county health department or public health nurse, positions 1-4.
3. Query the local health department on tuberculosis interchange form if no investigation report is received within 30 days.
4. Routing:
   Physician → local health department (register) → State health department (Record System).

B—Subsequent reports

Enter on one horizontal line on the card the new information as current status (e.g., date, diagnosis, sputum, medical supervision).

2. Clinic reports.

1. Enter on Record System card, date of examination, diagnosis, results of sputum tests, name of clinic and recommendations. Enter only reports of clinical examination. Do not itemize successive pneumothorax refills, unless it is planned to use cards as sources of statistical tabulations of clinic services. Successive clinic examinations in 6 month or 12 month periods that indicate no change in diagnosis or supervisory status could be shown on one line by adding only dates of successive exams under "Remarks." See Chapter 10, "What Statistical Data Will the Central Record System Provide?"

2. Signal for month re-examination due, positions 1-4.
3. Query only in special instances.
4. Routing:
   a. State clinic → State Record System → local register
   b. local clinic → local register → State Record System

3. Public health nursing reports.

1. Enter new information from Information Interchange Form:
   Patient's address, change in medical or nursing supervision, change in identifying data, name, marital status, occupation or place of employment. When the patient does not remain under medical supervision, enter periodically as part of the chronological medical history the date and fact of P.H.N. supervision, but show clearly under "Remarks" that medical supervision has been refused.
2. Signal only in special instances when information received is incomplete or inconsistent and another report is due.
3. Query only in special instances.
4. Routing:
   Public health nurse → local register → State Record System.

4. Sanatorium reports.

A—Admission

1. Enter on one horizontal line date and fact of admission, diagnosis, result of sputum examination and name of institution. Between clinic visits the dates and results of sputum examination can be added on one horizontal line under "Remarks."
2. Signal "case in sanatorium," position 8.
3. Query—none.
4. Routing:
   Sanatorium → State Record System → local register → public health nurse.

B—Discharge

1. Enter date and fact of discharge, diagnosis, sputum status, name of institution, reason for discharge, recommended medical supervision and pertinent remarks such as thoracoplasty or pneumothorax.
2. Signal report from public health nurse regarding current medical supervision due in the following month, positions 1-4.
3. Query if report is not received in one month.
4. Routing:
   Sanatorium → State Record System → local register → public health nurse.

5. Sputum reports.

A—Negative reports: Do not initiate Record System cards on basis of negative sputum reports. If card exists,

1. Enter date, result (including type of examination) and name of physician or agency submitting specimen.
2. Signal—position 8.
3. Query—none.
4. Routing:
   Laboratory → State Record System → local register → public health nurse.

B—Positive reports: If there is no card, prepare one.

1. Enter date, result of examination (including type) and name of physician or agency submitting specimen.
2. Signal "Positive sputum case," position 8, or if no official report has been received "Positive sputum—no case report," position 6.
3. Query: If no official morbidity report has been received and is not received within two weeks, request an official morbidity report from the physician or agency which submitted the specimen.
4. Routing:
   Laboratory → State Record System → local register → public health nurse.

6. Death reports.

1. Enter on Record System card date, fact and cause of death, name of physician or institution reporting.
2. Signal—none.
3. Query: If case has not been previously reported request official morbidity report from physician who signed the death certificate.
4. Routing:
   State vital statistics division → State Record System → local register → public health nurse.

7. Mass X-ray reports.

Initiate Record System card on the basis of the original small film report.

1. Enter name and identifying data, date of X-ray, suspected tuberculosis and reported by mass X-ray.
2. Signal:
   (a) "Mass X-ray suspect," position 6.
   (b) Remove signal when case is reported by official morbidity report or discharged as not significant.
   (c) Signal cases reported and left in current file as "Reported Case first discovered through mass survey," position 5.
3. Query: Whenever no further information is received on a suspect.
4. Routing:
   X-ray service → State Record System → local register → public health nurse.

Other reports.

General correspondence, interstate reciprocal reports and consultation film reports.

1. Enter pertinent information.
2. Signal if report indicates "Probable case—official morbidity report due," position 6.
3. Query local health department for official morbidity report from private physician.
4. Routing:
   Source → State Record System → local register.

8 HOW IS A LOCAL REGISTER INSTALLED?

Locally, the register serves as a direct guide for case management, since the local health department has the responsibility for controlling and preventing the spread of tuberculosis in the community. Although the State cooperates with the local health department in mass X-ray programs and in the operation of sanatoria and clinics, the direct follow-up of the cases revealed is usually done by the staff of the local health department and by local physicians.

The foregoing emphasis on a State Record System is not meant to minimize the importance of the local register. Rather, the State Record System should stimulate and aid local installations. It appears that the establishment of a State Central Case Record System with accompanying or later local registers is the easiest way to develop uniform local case record systems.

The State Central Record System and the local registers follow a similar plan. Each local register follows fewer cases but in more detail. The State Record System may be considered a complete series of local registers. The local register is but an amplified section of the State Record System.

Sources of information, problems of installation and maintenance are similar for both. The establishment in the State division of policy, plans and good working relations with other agencies simplifies many problems in the local health department. The director and the record analyst from the State tuberculosis division are familiar with these problems and can offer experienced assistance to the local health officer and supervisory nurse. They will want to become acquainted with the plans, mechanics and uses for the register; they may welcome assistance in the training of clerical personnel.

The extent of local tuberculosis control facilities is not stressed as the criterion for the installation of case registers. Even in an area with no clinics and inadequate public health nursing service, a register will be of considerable assistance in developing a program. The incomplete and negative information in the register will be an effective argument for ex-

pansion of tuberculosis control service. A local health department is ready to install and carry on its register when the following conditions are met:

1. The local health officer and supervising nurse recognize the need for the register, will support the plan and use it in their program.
2. Funds for equipment and personnel are available.
3. Clerical personnel is available to be assigned as needed.
4. There is active cooperation and interest on the part of others in the community who are engaged in tuberculosis control activities.

Some local health departments will start their registers simultaneously with the installation of the State Central Record System. Other local departments will wait until the State Record System is completed and use it as a nucleus for local installation. Presumably through investigation of local and other sources, all cases known to the local health department will already have been recorded in the State Record System with their intermediate and current disease and supervisory status. The director and record analyst from the State tuberculosis division will consult with local health department personnel to acquaint them with the Record System and its uses. With the State Central Record System as a basis, the two groups may plan for the following procedure:

1. Secure cooperation of the local agencies who will be the sources of information or the users of the register.
2. Set up plans for routing through the register all reports and information about tuberculosis cases, suspects and contacts.
3. Plan for register card and equipment. The design of the local register card should parallel that of the State Case Record card. In general, the differences between the two will consist of more space on the local card for detailed information, such as dates re-examinations are due, dates of nursing visits and dates and results of contact information and contact examinations. The local health department may add any other details it considers will be useful in case management.

   The companies manufacturing the equipment discussed in Chapter 4, "What Equipment Is Needed?" also manufacture small vertical visible units. Portable desk equipment is available for case loads from 100 to 1,000. For counties with smaller case loads, the book type visible record will be more economical and possess the visibility of the larger equipment.
4. Transcribe case summaries from State Case Record cards to local register cards.
5. Add any recent information from local records. Compare with records in local health department to add the details for case supervision not entered on the State Record System, such as date re-examination is due. Add names and ages of contacts, dates and results of examinations and dates due for re-examination.
6. Set up instructions for the local health department for the maintenance of the register.

9 HOW IS A LOCAL REGISTER MAINTAINED?

The local health department is responsible for the public health supervision of all cases known to it, not only at the time of discovery of the case, but for as many years as supervision may be needed to prevent the spread of disease. The tuberculosis division provides the general public health supervision of the individual tuberculosis case, delegating the specific medical supervision either to a clinic, a sanatorium or a private physician, according to the needs and preferences of the patient. Through the use of a tuberculosis case register, these activities are coordinated, and centralized supervision of all tuberculosis cases can be more easily provided.

DEFINITION OF THE REGISTER

A tuberculosis case register is a system of records for maintaining a current summary of pertinent medical and public health data on those proved and suspected cases of tuberculosis which according to the health department policy require some type of supervision.

PURPOSES OF THE REGISTER

1. To direct the public health supervision of all tuberculosis cases and suspects, especially those who do not keep clinic appointments or do not remain under satisfactory supervision.
2. To aid the health officer or tuberculosis division director and the public health nursing supervisor in the direction and evaluation of the services of their staff.
3. To serve as a source of reference for information about known tuberculosis cases.
4. To provide the statistical information needed for planning and evaluating the local tuberculosis control program.

PERSONNEL

1. The register is under the direct supervision of the director of tuberculosis control or the local health officer.

2. One individual must be responsible for keeping current information in the register and for maintaining the general accuracy and completeness of information. In small health departments a clerk may be assigned to this position on either a part-time or a full-time basis, depending on the size of the health department and its activities. In larger health departments this responsibility should be assigned to a record analyst who has training and experience in statistics and reporting methods.

3. The division director and the public health nursing supervisor should be familiar with the system and periodically review case histories from the register although the responsibility for maintenance has been delegated to a record analyst or clerk.

EQUIPMENT

A visible filing equipment (figure 14) which allows one or more margins of many cards to be visible at one time is recommended for ease in locating cards and particularly for the advantages of the signaling space on the visible margins. Colored signals can indicate the supervisory status of the patient and the date he should return for a re-examination. This insures that cases will not be overlooked or missed.

REGISTER CARD

Since this card is patterned after the State Central Record card, it too is planned for "vertical visible" or "off-set visible" filing equipment.

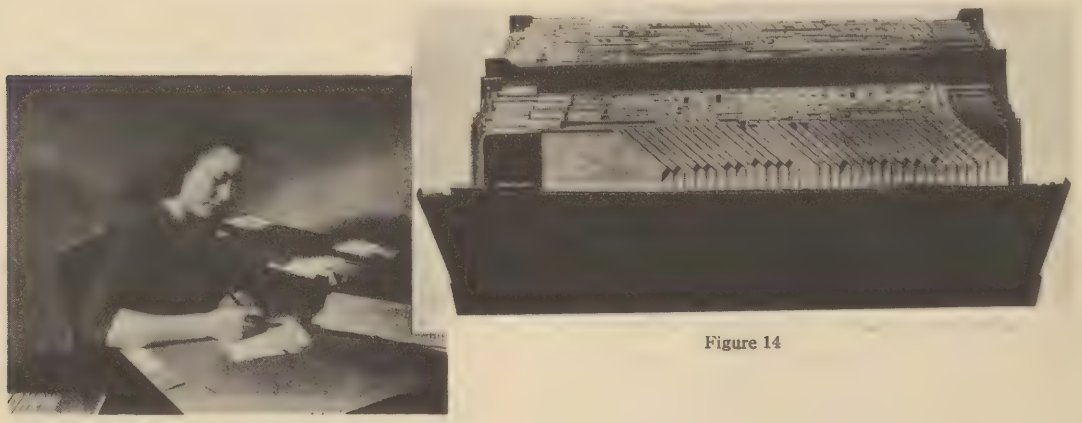


Figure 14

The register card is divided into 6 sections:

Front of the card

1. Upper 1/3 horizontally lined for identifying data and initial information.
2. Lower 2/3 of card with vertical columns for a chronological medical history, including diagnosis, sputum examinations, medical supervision and recommendations.
3. Visible margins with space for signaling supervisory status and dates next reports are due.

Back of the card

4. Column for dates of home nursing visits to the tuberculosis patient.
5. Section for remarks and information about social welfare or related agencies interested in the family.
6. Lower 2/3 for contact data.
   Name, address, identifying data, results of examinations and date due for re-examination.

POLICY FOR REGISTER: Current and Closed File

Current File: Contains a current record for all cases considered by local policy as administratively active—i.e., cases under current medical supervision or considered to be in need of medical supervision.

Closed File: Contains a record for all cases considered not administratively active—i.e., cases not in need of medical supervision.

Dead
Moved out of State
Lost

Arrangement of cards in current and closed files: Arrange cards alphabetically by the patient's surname.

ENTRIES --- Identifying data

FRONT OF CARD (Figure 15)

Name . . . . . Last name first, followed by first name and middle name or initial. For a married woman enter maiden name when available.

County . . . . . County of residence.

Number . . . . . A number can be assigned to each new case reported. A consecutive series beginning with 1 may be maintained within the county.

Address . . . . . Current home address. Subsequent addresses will be added. After each change of address, indicate the date. The last entry is present address. Admission to a hospital (other than a mental hospital) does not constitute a change of address.

Birth date . . . . . Enter month, day and year. If only age is given, compute and enter year of birth.

Age . . . . . At the time the case is first reported, enter age at last birthday.

Sex . . . . . M or F for male or female.

Color . . . . . W for white, N for Negro. Designations for other groups should be written out, as "Chinese," etc.

Marital status . . . Write in full: single, married, widowed, divorced, separated.

Occupation . . . . Enter description of specific job: janitor, teacher, miner, carpenter, bookkeeper, student, housewife. DO NOT CONFUSE WITH "place employed."

Place employed . . Enter name of company.

Under public health nursing supervision . Enter "yes" or "no." If there are several agencies in the community, specify whether supervision is from local health department, school or private nursing organization. State reason for no supervision.

Legal settlement in state and in county . Check correct blocks according to State law.

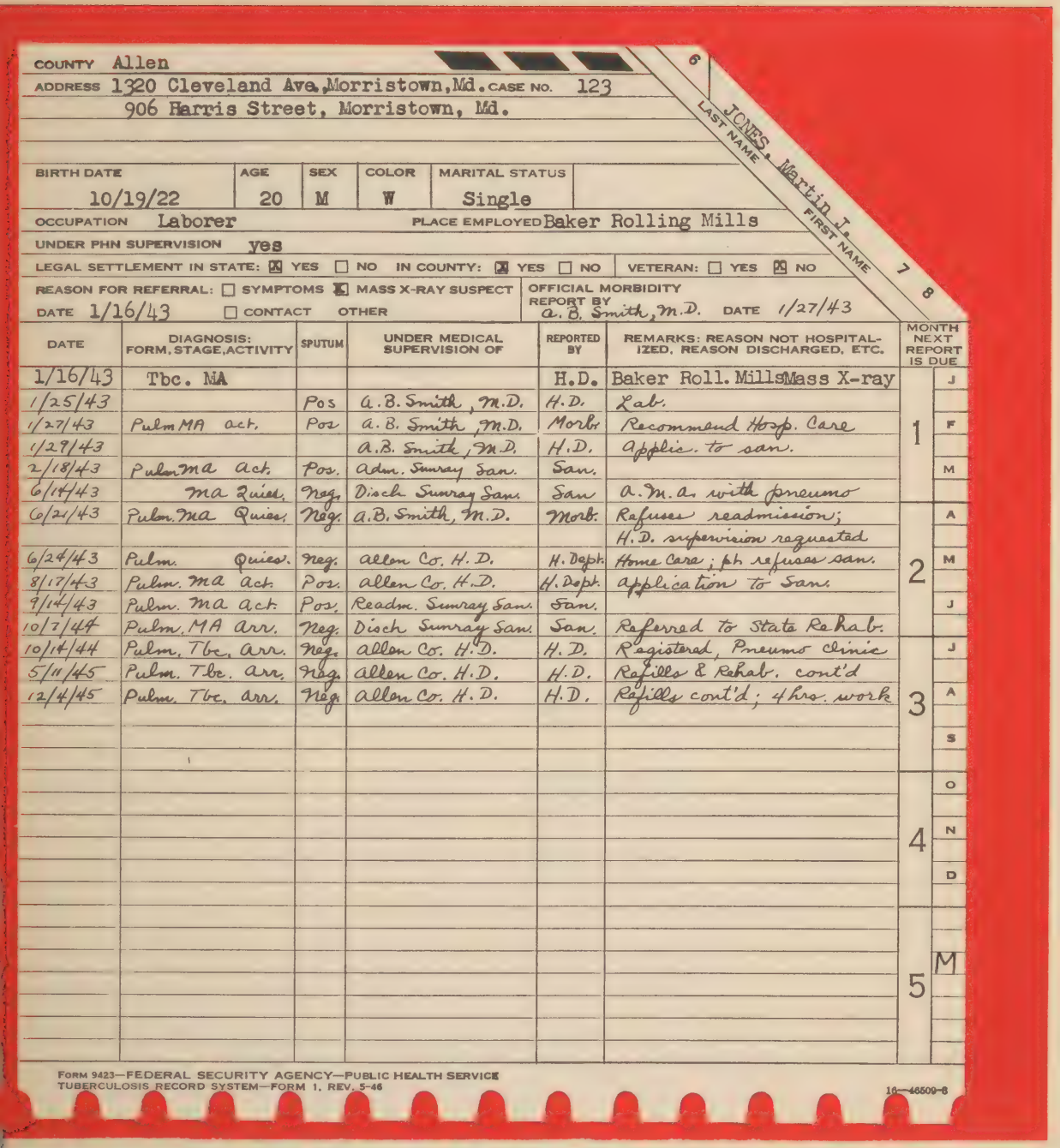
Veteran . . . . . Check yes or no.

Reason for referral . What prompted the first examination for tuberculosis? Check proper block for reason.

Date . . . . . Enter month and year of referral.

Official morbidity report by . . . . . Specify by name the private physician, clinic, sanatorium, hospital or other source first submitting an official morbidity report.

Date of report . . . Enter date of first morbidity report.



COUNTY Allen

ADDRESS 1320 Cleveland Ave, Morristown, Md. CASE NO. 123
906 Harris Street, Morristown, Md.

6

JONES, Martin J.
LAST NAME FIRST NAME

7 8

BIRTH DATE	AGE	SEX	COLOR	MARITAL STATUS
10/19/22	20	M	W	Single

OCCUPATION Laborer PLACE EMPLOYED Baker Rolling Mills

UNDER PHN SUPERVISION yes

LEGAL SETTLEMENT IN STATE: ☒ YES ☐ NO IN COUNTY: ☒ YES ☐ NO VETERAN: ☐ YES ☒ NO

REASON FOR REFERRAL: ☐ SYMPTOMS ☒ MASS X-RAY SUSPECT
DATE 1/16/43 ☐ CONTACT OTHER

OFFICIAL MORBIDITY REPORT BY a. B. Smith, M.D. DATE 1/27/43

DATE	DIAGNOSIS: FORM, STAGE, ACTIVITY	SPUTUM	UNDER MEDICAL SUPERVISION OF	REPORTED BY	REMARKS: REASON NOT HOSPITALIZED, REASON DISCHARGED, ETC.	MONTH NEXT REPORT IS DUE
1/16/43	Tbc. MA			H.D.	Baker Roll. Mills Mass X-ray	J
1/25/43		Pos	a.B. Smith, M.D.	H.D.	Lab.	
1/27/43	Pulm MA act.	Pos	a.B. Smith, M.D.	Morb.	Recommend Hosp. Care	1 F
1/29/43			a.B. Smith, M.D.	H.D.	Applic. to san.	
2/18/43	Pulm ma act.	Pos.	Adm. Sunray San.	San.		M
6/14/43	ma Quies.	Neg.	Disch Sunray San.	San	a.M.a. with pneumo	
6/21/43	Pulm. ma Quies.	Neg.	a.B. Smith, M.D.	Morb.	Refuses readmission;	A
					H.D. supervision requested	
6/24/43	Pulm. Quies.	Neg.	allen Co. H.D.	H. Dept.	Home Care; ph. refuses san.	2 M
8/17/43	Pulm. ma act.	Pos.	allen Co. H.D.	H. Dept.	application to San.	
9/14/43	Pulm. ma act.	Pos.	Readm. Sunray San.	San.		J
10/7/44	Pulm. MA arr.	Neg.	Disch Sunray San.	San.	Referred to State Rehab.	
10/14/44	Pulm. Tbc. arr.	Neg.	allen Co. H.D.	H.D.	Registered, Pneumo clinic	J
5/11/45	Pulm. Tbc. arr.	Neg.	allen Co. H.D.	H.D.	Refills & Rehab. cont'd	
12/4/45	Pulm. Tbc. arr.	Neg.	allen Co. H.D.	H.D.	Refills cont'd; 4 hrs. work	3 A
						S
						O
						4 N
						D
						5 M

FORM 9423—FEDERAL SECURITY AGENCY—PUBLIC HEALTH SERVICE
TUBERCULOSIS RECORD SYSTEM—FORM 1, REV. 5-46

16—46509-8

Figure 15. Sample Register Card

ENTRIES --- Current Status

Date . . . . . From report of private physician, clinic or hospital, copy *date of examination* (i.e., show date of examination—not date information is recorded). When the date of examination is unknown, enter date report reached register and indicate by an asterisk. Make entries in chronological order.

Diagnosis . . . . . Enter the form and stage of disease and the activity. Use the following abbreviations:

Form of disease
- Pulmonary . . . . . Pulm
- Primary . . . . . Prim
- Other forms . . . . . Specify and abbreviate

Stage of disease
- Minimal . . . . . Min
- Moderately advanced . . . . . Mod Adv
- Far advanced . . . . . Far Adv

Activity
- Active . . . . . Act
- Questionably active . . . . . Quest Act
- Quiescent . . . . . Quies
- Apparently arrested . . . . . App Arr
- Arrested . . . . . Arr
- Apparently cured . . . . . App Cured
- Inactive . . . . . Inact
- Healed . . . . . Heal

Other abbreviations
- Tuberculosis . . . . . Tbc
- Suspect . . . . . Susp
- Not stated . . . . . N S
- Questionable . . . . . ?
- Probably . . . . . Prob

Sputum . . . . . Positive . . . . . Pos
Negative . . . . . Neg
No expectoration . . . . . NE

Medical supervision

Private physician . . . . . Name of physician
Hospital . . . . . Name of institution
(specify if admitted or discharged) . . . . . (Adm or Disch)
Name of sanatorium* . . . . . Abbreviation
- 1 1
- 2 2
- 3 3
- 4 4

Clinic* . . . . . Name of chest clinic

Name	Abbreviation
1	1
2	2
3	3

Out-of-State . . . . . Specify supervision as above plus name of city and State

*Fill in names of institutions in your community.

Reported by . . . . Who sent the information to the register? Specify:

Source of report	Abbreviation	Source of report	Abbreviation
Clinic	Clin	Medical discharge from Armed Forces	A F
Death certificate	D Cert	Official mobidity report	Morb
Hospital (other than Tbc Sanatorium)	Hosp	Private physician	Phys
Institution (other than Tbc Sanatorium)	Inst	Public health nurse	PHN
Interstate referral	Int Ref	Tbc sanatorium	San
Mass X-ray	Mass X	Veterans' hospital report	Vet
		Laboratory	Lab

Remarks . . . . . Enter in abbreviated form all data not applicable to the other columns but important for the supervision of the case, such as:

application made for hospitalization
complications
pneumothorax
reason discharged
recommendations for treatment
surgery

Month report due . Signal the date the next re-examination is scheduled or the date the next information should reach the register.

BACK OF CARD (Figure 15A)

Other agencies . . . Specify names of social, welfare or related agencies and reason for supervision of case or family. Enter date of family's last contact with agency.

Date nursing visits . Enter the date of each home nursing visit to the tuberculosis patient.

CONTACTS

Name . . . . . Enter surname followed by first name.

REMARKS: (OTHER AGENCIES?)

Home conditions good. Family cooperative.
Social Service Exchange reports family registered 5/41
with Child Guidance Center

DATES OF NURSING VISITS

1/21/43
1/29/43
2/12/43
4/15/43
6/15/43
7/6/43
7/20/43
8/3/43
8/12/43
9/11/43
11/22/43
2/17/44
5/14/44
10/4/44
10/12/44
1/7/45
3/11/45
6/23/45
9/12/45

CONTACTS

NAMES OF CONTACTS (ADDRESSES IF DIFFERENT FROM THIS CASE)	REL. TO CASE	BIRTH DATE, SEX, COLOR	DATE EXAMINED	DIAGNOSIS	DATE DUE FOR RE-EXAM.	REMARKS
1 Jones, Edward	F	1890 M W	2/15/43	Neg X-ray	9/43	Clinic, not pos. source
2 Jones, Mary	M	1893 F W	2/15/43	Neg X-ray	6/16/43	Clinic, not pos. source
3 Jones, Donald	B	1928 M W	2/15/43 7/20/43 11/20/43	Neg. Neg. Neg.	8/43	PPD Neg. PPD Neg. PPD Neg.
4 Johnson, Ruth	Sis	1918 F W	1/30/43 7/20/43 2/13/44	Prim. X-ray Neg. X-ray Neg.	7/43 1/44 8/44	Pos. PPD Neg X-ray clinic Wrkg Madison's Dept. Store Survey at Madison's
5			9/2/44	X-ray Neg.	3/44	Clinic
6. Porter, James (Roomer)		1915 M W	3/25/43	MA Tbc		Clinic - Prob. Source See register card for Porter Case No. 156
7						
8						
9						
10						

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Figure 15A. Back of Register Card

Relationship to case Abbreviate

Father	F	Uncle	U
Mother	M	Cousin	C
Wife	W	Niece	N
Husband	H	Nephew	Nep
Daughter	D	Grandfather	G F
Son	S	In-law	L
Brother	B	Brother-in-law	BL
Sister	Sis	Stepfather	S F
Aunt	A		

Year of birth . . . Enter year only

Sex . . . . . M for male, F for female

Color . . . . . W for white, N for Negro. Abbreviate designations for other groups as Chin. for Chinese, Ind. for Indian.

Date examined . . . Enter date

Diagnosis . . . . . Enter Neg for negative if studies indicate that tuberculous infection does not exist or if the only evidence of tuberculosis is a positive tuberculin test.

Obs for observation

If the diagnosis of tuberculosis is made, use abbreviations given under Diagnosis on page 62 on the front of the card.

Specify whether the examination was by tuberculin, fluoroscope or X-ray.

Date due for re-exam Enter date as recommended by physician.

Remarks . . . . . Enter the source of the medical supervision such as the name of clinic or private physician.

SIGNALS

Use to indicate:

1. Supervisory status.
   a. Cases hospitalized
   b. Presumably active or positive sputum cases not hospitalized
   c. Cases under no medical supervision
   d. Cases under clinic supervision
2. Cases requiring current action each month.
   a. Cases which should return to clinic
   b. Cases under the supervision of the private physician who should be queried during the month
   c. Cases on whom some follow-up information is due
3. Special groups of cases significant for further study or statistical analysis.
   a. Suspects
   b. Newly reported cases
   c. Cases first reported through mass X-ray

SPECIFIC SIGNALING PLAN . The visible margin may be divided into the eight signaling positions.

MEANING OF SIGNAL	POSITION	COLOR
Supervision and status of cases:		
Case in sanatorium	8	Blue
Case in other institution	8	Green
Positive sputum case in the home	8	Red with hole
Sputum unknown in the home	8	Red
Sputum negative case in the home	8	Brown
Case under no supervision	7	Black
Case under clinic supervision	7	Pink
Maintenance of register:		
Month examination due or further information due		
January (1st quarter)	1	Red
February (1st quarter)	1	Blue
March (1st quarter)	1	Pink
April (2nd quarter)	2	Red
May (2nd quarter)	2	Blue
June (2nd quarter)	2	Pink
July (3rd quarter)	3	Red
August (3rd quarter)	3	Blue
September (3rd quarter)	3	Pink
October (4th quarter)	4	Red
November (4th quarter)	4	Blue
December (4th quarter)	4	Pink
Reference to special groups:		
Suspects		
Positive sputum—no case report	6	Red
Mass X-ray suspect	6	Brown
Any other suspect not reported	6	Green
Probable case, official morbidity report due	6	Blue
New case reported within calendar year	5	Pink
Reported case first discovered by mass X-ray	5	Brown M*
Reported case first discovered by clinic	5	Green C*

*Any item which remains constant may be given a permanent signal by use of a rubber stamp and colored stamp pad ink.

GENERAL DIRECTIONS FOR ENTRIES IN THE REGISTER: Current File and Closed File

For each report: Check each incoming report against the current file and the closed file to learn whether a register card exists.

A—If there is a register card:

1. pull from file
2. enter new information
3. signal
4. refile register card
5. route report to proper persons

B—If there is no register card:

1. search other possible sources of information in the office—(old case index, mass survey file, correspondence)
2. originate a register card from the new report, adding pertinent data previously reported
3. signal
4. file register card in proper place—current or closed file
5. route report to proper persons

For transfer between current and closed file:

A—When an administratively active case is closed, transfer card from current to closed file (dead, moved, lost, not significant for further follow-up)

B—When a closed case becomes administratively active, transfer card from closed file to the current file (lost case which has been found or cases which have moved back to the community)

Change of address:

A—Enter new address on register card

B—When a report indicates that a person has moved outside the county, transfer card from current to closed file

C—Notify State Record System of change of address on tuberculosis interchange form (figure 5, page 24)

For querying:

A—Whenever information reaching the register is incomplete or inconsistent, query the source of report for additional information. Affix a signal to the register card and denote the month in which a reply is due (Signal position 1-4). The tuberculosis interchange form can be used to query local nurses or the State Record System.

B—When more than 6 months have elapsed since the last report on an administratively active case under the supervision of a private physician, query private physician for current status of patient. Telephone call or nursing visit may be used to request information from private physician.

SPECIFIC REPORTS WHICH FLOW TO THE REGISTER AND METHODS OF HANDLING

1. Official morbidity reports made by the private physician, clinic physician, hospital physician or the local health department to report the existence of a case of tuberculosis.

a. When first report is received, prepare and file a new card, using available information. Use standard abbreviations for diagnosis (see page 62).

b. Signal card indicating the month an investigation report is due from public health nurse (Signal position 1-4).
If no report in 2 weeks, send query on tuberculosis interchange form to nurse.

c. If there is already a register card for case, enter the new information as current status in one horizontal line on the card.

d. Report is routed from physician → local health department (case register) → State health department (State Central Record System).

2. Clinic reports

a. Enter on the register card, date of examination, diagnosis, results of sputum tests, name of clinic and recommendations. (Use abbreviations on pages 62, 63.) On reverse of card enter date and result of contact examination.

b. Enter reports of clinical examinations.
Itemize dates of successive pneumothorax refills under "Remarks" on same line as last clinical examination.

c. Signal indicating "Month next report is due," positions 1-4.

d. Routing of report:
1. local health department clinic → local register → State Record System, or
2. State clinic → State Record System → local register

3. Public health nursing report

a. Enter on register card date of each public health nursing visit to the tuberculosis patient and any new information or change of information. This may consist of movement of patient, change in medical or nursing supervision or change of identifying data, such as name, marital status, occupation or place of employment, examination of contacts.

b. In small centralized health departments the nursing record can be routed through the register after each home visit. The date of nursing visit and changes of information can be entered on the register by the clerk.

c. In large health departments the nurse will probably inform the register of new information or change of information on the tuberculosis interchange form. Record of home nursing visits can be secured for the register from the daily record sheet of each nurse. After the sheets have been used for statistical tabulation, they can be routed weekly or monthly through the register.

d. Information is routed by means of a tuberculosis interchange form. Public health nurse → register → State Record System.

4. Hospital admission and discharge reports

a. Admission: Enter on one horizontal line the date and fact of admission, diagnosis, result of sputum examination and name of institution.

b. Discharge: Enter same data plus reason for discharge and recommended supervision.
Affix signal indicating the month the next report is due, Signal position 1-4.

c. Routing of hospital reports:
Hospital → State Record System → local register → public health nurse.

5. Sputum reports

a. Negative reports: Enter on register card the date, result of examination—including type of examination—and name of physician or agency submitting specimen.

b. Positive reports: Enter information as above.
If there is no case record in the register, prepare a register card.
Affix signal indicating "Positive sputum—no case report," Signal position 6.
After two weeks, request an official morbidity report from the physician or agency which submitted the specimen.

c. Routing of reports:
Laboratory → State Record System → register → public health nurse.

6. Death reports

a. Enter on register card fact and cause of death and name of physician or institution.

b. If no register card exists, prepare one from the information on the death report and place the card in the closed file.
Request official morbidity report from physician who signed the death certificate.
Send interchange form to public health nurse to initiate contact examinations.

c. Routing:
Vital statistics division → State Record System → register → public health nurse.

7. Mass X-ray reports

a. Start register cards for all suspects on the basis of the small film reading.
Make subsequent entries from the reports of the 14″x 17″ follow-up film, clinical examinations and nursing visits.

b. Signal "Mass X-ray suspects" (Signal position 6) for attention, until the suspect is officially reported as a tuberculosis case or as not significant for further supervision.

10 WHAT STATISTICAL DATA WILL THE STATE CENTRAL RECORD SYSTEM PROVIDE?

In addition to serving as a case-holding device, the Central Record System offers an opportunity to assemble and analyze data for general administration of the State and local tuberculosis programs, and for research in the epidemiology of tuberculosis. Statistics to be used by the administration for consultation and guidance to local health departments, in direct case management and program planning, can be summarized from the State Record System whenever needed. These statistics can further serve as a source of most of the data required by U. S. Public Health Service for semi-annual and annual reports.

The State tuberculosis director requires a knowledge of the total State tuberculosis problem to direct the allocation and expenditure of funds and services. He must be able to evaluate the results of services in terms of cases brought under public health nursing supervision, cases hospitalized and cases receiving clinic service. All this information is available from the Central Case Record System.

Quantitative measures of total services furnished by public health nurses and clinics to tuberculosis cases cannot be obtained from the State Record System without provision for additional details on the cards. The record of services to contacts and suspects, an important part of tuberculosis control programs, will also not be available from the State Record System. These statistics in most instances must originate from direct compilations of the services of each clinic and public health nursing division.

While it may not be practical to analyze certain information from the State Record System because of incomplete or unreliable reporting, the need for basic tabulations on new cases, case loads, and deaths is evident. Certain of these tabulations may be planned in advance and will be of use even though the raw data are incomplete. Some will be assembled as needed and will be merely hand counts to give particular indices. Information such as geographic distribution of cases and deaths may be tabulated

each month, while more detail of the status of the known case load will be tabulated annually or semi-annually.

The method employed to tabulate these data will vary according to the size of the State Record System and the equipment and personnel of the tuberculosis division and the State health department. For small Record Systems containing less than 1,000 cases, it will be possible to hand-sort the cards for the necessary statistics. The vertical visible filing equipment simplifies the process of pulling and re-filing the cards so that the cards can be pulled from the file and easily hand-sorted and counted according to any classification desired. However, even for small installations it will be worthwhile to consider the use of auxiliary punch cards of a simple design to obtain annual or semi-annual tabulations.

Machine tabulation is usually needed to compile sufficient statistics on a semi-annual or annual basis from a record system of more than 1,000 cases. Accuracy and economy of effort result.

METHODS OF MACHINE TABULATION

Any State tuberculosis division planning to obtain statistics from the Record System by using punch card equipment must decide whether (1) to maintain a statistical punch card file as current as the Record System or (2) to punch the whole Record System periodically whenever tabulations are planned (i.e., semi-annually or annually). The first means re-punching the statistical card each time new information on the case comes to the Central Record System. This is a large additional clerical job. The second is a simpler clerical operation; this will call for the complete re-punching of the Record System material annually or semi-annually. The obvious disadvantage is that original and current status of cases is indicated only at a given time.

After practical experience in the field with both methods, it became evident that the first plan was cumbersome and could work only in a State with excellent facilities for statistical operations. Even then, it was doubtful whether the value gained from this method would warrant the expenditure of the extra funds needed for its maintenance. The second plan works well and is relatively simple. In this chapter are presented a punch card code and suggested tables which will make available statistics on new cases and suspects, current case load, and mortality. A brief description of each of the tables follows:

Tables I. A, B, C

Summary statistics for case management.

State Central Record System personnel should be ready, at any time, to supply summaries of information for local areas. The director of the tuberulosis division or State consultant nurses may request this information to be used for consultation and guidance in field work with local health departments. Basic data can be quickly hand tallied from the county section of the Record System. Some of these are:

Table I A

Current Status of Cases and Suspects.

Listings, by name, of cases needing discussion and review.

Examples:

1. Cases discharged from nursing service
2. Cases under no medical supervision
3. Cases with no record of a recent examination
4. Positive sputum cases or active cases not hospitalized

Cases and Suspects by status

1. Tuberculosis cases in current file
   a. Cases in sanatoria
   b. Cases in other institutions
2. Suspects in current file

3. Mass X-ray suspects by current status
   a. Reported as cases
   b. Reported as not tuberculosis
   c. No report received

Table I B

Probable activity of disease for cases not hospitalized.

Table I C

Type of current medical supervision for cases not hospitalized.

TABLE 1 A

COUNTY _____ POPULATION _____

(STATE)

A. Listing, by name, of cases needing discussion or review

B. Cases and Suspects by Status:

1 Tuberculosis Cases in Current File
   a. Cases in sanatoria _____
   b Cases in other institutions _____
2. Suspects in Current File
3. Mass x-ray suspects
   By disposition status
   a. Reported as cases _____
   b. Reported as not tuberculosis _____
   c No disposition report received _____

TABLE 1 B

PROBABLE ACTIVITY BY TYPE OF SUPERVISION FOR CASES IN CENTRAL RECORD SYSTEM NOT HOSPITALIZED

PROBABLE ACTIVITY	TOTAL	TYPE OF SUPERVISION					
		CLINIC		PR. PHYSICIAN		NONE	
		UNDER PHN	NO PHN	UNDER PHN	NO PHN	UNDER PHN	NO PHN
TOTAL							
POSITIVE SPUTUM							
OTHER ACTIVE OR PRESUMABLY ACTIVE							
OTHER CASES							

TABLE 1 C

TYPE OF SUPERVISION BY INTERVAL SINCE LAST REPORT RECEIVED FOR CASES NOT HOSPITALIZED

TYPE OF SUPERVISION	TOTAL	INTERVAL SINCE LAST REPORT RECEIVED			
		Report within 6 months	6-11 months	12-23 months	2 years & over
TOTAL					
CLINIC					
HEALTH DEPARTMENT					
PRIVATE PHYSICIAN					
NONE					

Tables II. A, B, C

Current morbidity reports.

An analysis of the characteristics of newly reported cases, monthly and annually, will serve as a measure of the effectiveness of case finding activities in tuberculosis control. These data collected over a period of years can be used to determine trends in case finding and reporting. Variables important in the analysis of the new morbidity reports are: geographic distribution, the source of the report, stage of disease, age, sex and color.

Table II A

Newly reported cases by county or city of residence and by form and stage of disease.

When the geographic distribution of new cases and deaths is available, it is possible to compute the ratio of new cases to deaths in a given area. This is often used as a measure of the adequacy of case finding methods. The classification of new cases by stage of disease and county of residence will point out the areas reporting tuberculosis only in its advanced stages.

Table II B

Newly reported cases by form and stage of disease and source of report.

This is a particularly useful table since it not only tells who are discovering and reporting new cases (i.e., private physicians, health departments, clinics, etc.) but also indicates the sources which are discovering tuberculosis in its early stages.

Table II C

Newly reported cases by form and stage of disease by age, sex and color.

Distribution of tuberculosis cases by age, sex, and color is information necessary for direction of services of case finding and case management.

TABLE II A

NEWLY REPORTED CASES OF TUBERCULOSIS BY RESIDENCE OF CASE AND BY FORM AND STAGE OF DISEASE

Geographic Area (County or City)	TOTAL	FORM AND STAGE OF DISEASE						
		REINFECTION TUBERCULOSIS					NOT STATED	PRIMARY
		Minimal	Mod. Advanced	Far Advanced	Stage Not Stated	Other forms		
TOTAL								

TABLE II B

NEWLY REPORTED CASES OF TUBERCULOSIS BY FORM AND STAGE OF DISEASE AND SOURCE OF REPORT

Form and Stage of Disease	TOTAL	Source of Report						
		Private Phys.	Health Dept.	Clinic	Sanatorium	Other Instit.	Other Hosp.	Other
TOTAL								
REINFECTION TUBERCULOSIS								
Minimal								
Mod. Advanced								
Far Advanced								
Stage not stated								
Other Forms								
Not Stated								
Primary								

TABLE II C

NEWLY REPORTED CASES OF TUBERCULOSIS BY FORM AND STAGE OF DISEASE BY AGE, SEX AND COLOR

WHITE

AGE	Total		FORM AND STAGE OF DISEASE													
			REINFECTION TUBERCULOSIS										Not Stated		Primary	
			Minimal		Mod. Advanced		Far Advanced		Stage not stated		Other forms					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL																
UNDER 5 YEARS																
5-14																
15-24																
25-34																
35-44																
45-54																
55-64																
65 and over																

NONWHITE

AGE	Total		FORM AND STAGE OF DISEASE													
			REINFECTION TUBERCULOSIS										Not Stated		Primary	
			Minimal		Mod. Advanced		Far Advanced		Stage not stated		Other forms					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL																
UNDER 5 YEARS																
5-14																
15-24																
25-34																
35-44																
45-54																
55-64																
65 and over																

Tables III. A, B, C, D

Current Analysis of Record System.

Neither incidence nor mortality data as collected in State health departments gives a complete picture of the total known State tuberculosis problem. The State Tuberculosis Record System can be the source of more information. Possible tabulations and their uses are too numerous to discuss in a manual. There are some, however, that should be set up routinely from any State Record System; and some which will serve as bases for annual or semi-annual reports. They pertain to the geographic distribution of cases, clinical status and types of supervision.

The State health department needs to know the geographic distribution of the case load and its characteristics. To evaluate and plan for services, analyses by clinical status and by type of supervision (i.e., the number of active, presumably active, or inactive cases under the supervision of private physicians, health department clinics, sanatoria, or under no supervision) will be valuable. The number of presumably active or positive sputum cases not hospitalized may be an indication of a need for added sanatorium facilities. Age, sex and color distributions of the case load may further define the problem. To include these factors, the following tables are suggested for geographic subdivisions and for the total State.

Table III A

Cases by age, sex and color, and by form and stage of disease.

Table III B

Cases by current medical supervision and probable activity.

Table III C

Cases by current medical supervision and the interval since last report was received.

Table III D

Cases by reason referred and current medical supervision.

Additional tabulations.

From other information on the card, counts may be made periodically or whenever needed. These would include, for administrative purposes, items such as:

1. Number of veterans reported as cases
2. Number of cases without legal residence in the State
3. Number of positive sputum cases not officially reported.

TABLE III A

CASES BY AGE, SEX AND COLOR AND BY FORM AND STAGE OF DISEASE

WHITE

AGE	Total		FORM AND STAGE OF DISEASE													
			REINFECTION TUBERCULOSIS										Not Stated		Primary	
			Minimal		Mod Advanced		Far Advanced		Stage not stated		Other forms					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL																
Under 5 Years																
5-14																
15-24																
25-34																
35-44																
45-54																
55-64																
65 and over																

NONWHITE

AGE	Total		FORM AND STAGE OF DISEASE													
			REINFECTION TUBERCULOSIS										Not Stated		Primary	
			Minimal		Mod Advanced		Far Advanced		Stage not stated		Other forms					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL																
Under 5 Years																
5-14																
15-24																
25-34																
35-44																
45-54																
55-64																
65 and over																

TABLE III B

CASES BY CURRENT MEDICAL SUPERVISION AND PROBABLE ACTIVITY

CURRENT MEDICAL SUPERVISION	TOTAL	ACTIVE OR QUESTIONABLY ACTIVE			OTHER	
		POSITIVE SPUTUM	SPUTUM NEGATIVE	SPUTUM UNKNOWN	INACTIVE	NOT STATED
TOTAL						
PRIVATE PHYSICIAN						
HEALTH DEPARTMENT						
TUBERCULOSIS CLINIC						
Tuberculosis Sanatorium						
OTHER HOSPITAL						
OTHER INSTITUTIONS						
OTHER						
NONE						
NOT STATED						

TABLE III C

CASES BY CURRENT MEDICAL SUPERVISION AND THE INTERVAL SINCE LAST REPORT WAS RECEIVED

CURRENT MEDICAL SUPERVISION	TOTAL	TIME INTERVAL SINCE LAST REPORT RECEIVED			
		Report within 6 months	6-11 months	12-23 mo.	2 years and over
TOTAL					
PRIVATE PHYSICIAN					
HEALTH DEPARTMENT					
TUBERCULOSIS CLINIC					
Tuberculosis Sanatorium					
OTHER HOSPITAL					
OTHER INSTITUTIONS					
OTHER					
NONE					
NOT STATED					

TABLE III D

CASES BY REASON REFERRED AND CURRENT MEDICAL SUPERVISION

REASON REFERRED	Total	CURRENT MEDICAL SUPERVISION								
		Private PHYS.	Health dept.	Clinic	Tbc. San.	Other Hosp.	Other Inst.	Other	None	Not Stated
TOTAL										
SELECTIVE SERVICE										
MASS X-RAY										
POSITIVE SPUTUM										
INTERSTATE REFERRAL										
Army and Navy Discharge										
VETERANS REPORT										
CONTACT										
SYMPTOMS										
OTHER										
NOT STATED										

Tables IV. A, B, C

Analysis of the closed file.

Cases discharged from the current file to the closed file provide information essential for evaluation of the tuberculosis program and services. For the most part, these cases will be dead, moved out of State, healed, lost or defined as administratively inactive.* Significant statistics for cases closed each year are the following:

Table IV A

Reason discharged from current file by length of time in current file.

Table IV B

Tuberculosis deaths by form of disease, age, sex and color.

Table IV C

Tuberculosis deaths by county of residence and interval since first report.

*See chapter VII, "How Is A State Central Record System Installed and Maintained?" p. 36.

TABLE IV A

CASES OF TUBERCULOSIS BY REASON DISCHARGED FROM CURRENT FILE BY LENGTH OF TIME IN CURRENT FILE

REASON FOR DISCHARGE	Total	LENGTH OF TIME IN CURRENT FILE						
		None	Under 6 mo.	6-11 mo.	12-23 mo.	24-35 mo.	3-5 yr.	6 yr. & over
TOTAL								
INACTIVE TUBERCULOSIS (not significant for supervision)								
DEAD								
LOST								
MOVED OUT-OF-STATE								
OLD PRIMARY								
NON-TUBERCULOUS								
OTHER								
NOT STATED								

TABLE IV B

DEATHS BY FORM OF DISEASE, AGE, SEX, AND COLOR

WHITE

AGE	TOTAL—all forms		FORM OF DISEASE			
			PULMONARY		OTHER FORMS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
TOTAL						
Under 5 Years						
5-14						
15-24						
25-34						
35-44						
45-54						
55-64						
65 years and over						

NON-WHITE

AGE	TOTAL—all forms		FORM OF DISEASE			
			PULMONARY		OTHER FORMS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
TOTAL						
Under 5 Years						
5-14						

TABLE IV C

TUBERCULOSIS DEATHS BY TIME INTERVAL BETWEEN TUBERCULOSIS CASE REPORT AND DEATH, BY COUNTY

County	Total	Time interval between case report and death					
		After death[1]	Under 3 months	3 to 5 months	6 to 11 months	1 yr. to 2 yrs. 11 months	3 yrs. and over
TOTAL							

[1] Cases first reported by death certificate or by morbidity report simultaneously with or after death.

Another use of the Central Record System is to furnish data necessary for the semi-annual and annual reports requested by the U. S. Public Health Service. A copy of each report is reproduced below (figures 16 and 17).

SEMI-ANNUAL TUBERCULOSIS REPORT

FORM
Federal Security Agency
Public Health Service
Tuberculosis Control Div.

SEMI - ANNUAL
TUBERCULOSIS REPORT

State or City	Six-months' Period Ending

I. MASS RADIOGRAPHY PROJECTS

PROJECT FINDINGS	TOTAL	SPONSORED BY	
		Official agencies	Private agencies
A. Number of individuals reported examined in Mass Radiography Projects...			
B. Total number of individuals with films characteristic of reinfection tuberculosis (By Stage of Disease).....			
1. Minimal.....			
2. Moderately advanced.....			
3. Far advanced.....			
4. Stage unknown.....			
C. Number of morbidity reports received this period for cases first discovered by Mass Radiography Projects.....			

II. MORBIDITY

A. Total tuberculosis cases newly reported during this period (By Source of Report).....	
1. Private physicians.....	
2. Tuberculosis sanatoria and general hospitals.....	
3. Public and private chest clinics.....	
4. Mental institutions.....	
5. Death certificates.....	
6. Other.....	

B. Race and sex of newly reported cases	TOTAL	SEX	
		Male	Female
Total.....			
1. White.....			
2. Non-white.....			

III. MORTALITY

A. Provisional number of tuberculosis death certificates coded nos. 13-22 inclusive* by State Vital Statistics Division for this six-months' period (By Place of Occurrence)..... *International List of Causes of Death	

Remarks

FIGURE 16

It will be found that most of the material required for the semi-annual summaries, and part of that for the annual, can be obtained from the suggested tabulations:

SEMI-ANNUAL TUBERCULOSIS REPORT

I. Mass Radiography Projects

Item A. Obtain from units operating in the area.

Item B. Count all vertical visible register cards prepared during the six-month period for all individuals whose reports from mass radiography units show films characteristic of reinfection tuberculosis, regardless of whether follow-up examinations have been made or not. Such individuals will ordinarily be classified as suspects until follow-up examinations have been completed
or
Obtain from Mass Radiography Project Analysis Reports from all units operating in the area.

Item C. Hand sort record cards or
Use columns 21 through 23 of the suggested codes for punch card system.
Count those tuberculosis cases newly reported during the six-month period regardless of the date they were found in mass radiography services as tuberculosis suspects or as having films characteristic of reinfection tuberculosis.

II. Morbidity

Item A. Hand sort record cards for month and year of initial report or
Use columns 13, 14 and 15 of Code.

Item B. Hand sort for race and sex or
Use columns 9 and 10 Code.

III. Mortality

Item A. Obtain information from Vital Statistics Division

ANNUAL TUBERCULOSIS REPORT (Figure 17)

IV. Chest Clinic Services

Item A. Count record cards or
Obtain statistical reports from each clinic in the State.

Item B. Count record cards or
Obtain statistical reports from each clinic in the State.

Items C and D. Obtain from clinic records unless record cards are planned to include such detail.

V. Public Health Nursing Services

Items A and B. Obtain from local registers or nursing records.

PUNCH CARD SCHEDULE

Identification

1-2	County or city of residence
3-6	Case number
7-8	Year of birth
9	Sex
10	Color
11	Length of residence in State
12	Veteran status

Original Report

13-14	Month and year of report

ANNUAL TUBERCULOSIS REPORT

FORM
Federal Security Agency
Public Health Service
Tuberculosis Control Div.

ANNUAL
TUBERCULOSIS REPORT

STATE or CITY	YEAR ENDING
	December 31, 194__

IV. CHEST CLINIC SERVICES

CLASSIFICATION	TOTAL	WHITE		NON-WHITE	
		Under 15 years	15 years and over	Under 15 years	15 years and over
A. Total number of clinic cases of reinfection tuberculosis diagnosed for the first time during year					
1. Minimal					
2. Moderately advanced					
3. Far advanced					
4. Reinfection tuberculosis (Stage Not Specified)					
Total probably active					
1. Minimal (Probably Active)					
2. Moderately advanced (Probably Active)					
3. Far advanced (Probably Active)					
4. Reinfection tuberculosis (Stage Not Specified But Probably Active)					
B. Number of previously diagnosed reinfection cases given clinic service during year					
C. Total clinic services given during year to all persons included under (A) and (B)					
D. Pneumothorax Service					
1. Number of patients given pneumothorax during year					
2. Number of pneumothorax refills and other services given during year					

V. TUBERCULOSIS PUBLIC HEALTH NURSING SERVICES

A. Total number of tuberculosis cases which were given home nursing service during this year	
1. Cases admitted to home nursing service for first time	
2. Cases first admitted to home nursing service during previous years	
B. Total number of visits for tuberculosis made by home nursing service	

Remarks

FIGURE 17

15 Source of report

16-17 County or city of residence at time of original report

18 Stage of disease

19 Clinical status

20 Sputum status

21 Reason referred

22-23 Month and year of original report

Current Status

24 Interval since last report

25 Stage of disease

26 Clinical status

27 Number of clinic visits

28 Sputum

29 Supervision

30 PHN

Closed File

31-32 Date discharged from current file

33 Reason discharged

34 Interval between official report and discharge from current file

PUNCH CARD CODE

Column

1-2 County or city of residence

01 . . . Auburn

02 . . . Baker

03 . . . Clackamas

3-6 Case number

Numerical

Example: 0001

0002

0003

7-8 Year of birth

Numerical—last two digits of year

Example: 99 . . . 1899

00 . . . 1900

35 . . . 1935

9 Sex

1 . . . Male

2 . . . Female

X . . . Not stated

10 Color

1 . . . White

2 . . . Negro

3 . . . Mexican

4 . . . Indian

5 . . . Oriental (Chinese, Japanese, Filipino)

9 . . . Other

X . . . Not stated

11 Length of residence in state

1 . . . Under 1 year

2 . . . 1 year and over

X . . . Not stated

12 Veteran status

1 . . . Veteran

2 . . . Non-veteran

X . . . Not stated

13-14 Morbidity (Month and Year of Original Report)

13 Month	14 Year
1 . . . January	Punch last digit
2 . . . February	of year.
3 . . . March	
4 . . . April	
5 . . . May	
6 . . . June	

7 . . . July
8 . . . August
9 . . . September
0 . . . October
X . . . November
Y . . . December

15 Source of official morbidity report
1 . . . Private physician
2 . . . Local health department
3 . . . Clinic
4 . . . Tuberculosis sanatorium
5 . . . Other hospital
6 . . . Mental institution
8 . . . Death certificate
9 . . . Other
X . . . Not stated

16-17 County or city of residence at time of original report
Same code as for columns 1-2

18 Stage of disease on original report
1 . . . Minimal
2 . . . Moderately advanced
3 . . . Far advanced
4 . . . Advanced, not specified
5 . . . Pulmonary, stage not stated
6 . . . Primary
9 . . . Other forms
X . . . Not stated

19 Activity and clinical status
1 . . . Active
2 . . . Probably active
3 . . . Questionably active or activity undetermined
4 . . . Inactive
6 . . . Quiescent
7 . . . Apparently arrested
8 . . . Arrested
9 . . . Apparently cured or healed
X . . . Not stated

20 Sputum status at time of original report
1 . . . Positive
2 . . . Negative
9 . . . No expectoration
X . . . Not examined

21 Reason referred
1 . . . Symptoms
2 . . . Contact
3 . . . Mass x-ray
4 . . . Selective Service
5 . . . Army or Navy Discharge
6 . . . Veterans Hospital
7 . . . Interstate referral
8 . . . Positive sputum
9 . . . Other
X . . . Not stated

22-23 Month and year of original referral

22 Month	23 Year
1 . . . January	Punch last digit
2 . . . February	of year
3 . . . March	
4 . . . April	
5 . . . May	
6 . . . June	
7 . . . July	
8 . . . August	
9 . . . September	
0 . . . October	
X . . . November	
Y . . . December	

24 Interval since last report
1 . . . Less than 6 months

2 . . . Less than 6 months, initial report only
3 . . . 6-11 months
4 . . . 6-11 months, initial report only
5 . . . 1 year
6 . . . 1 year, initial report only
7 . . . 2 years and over
8 . . . 2 years and over, initial report only

25 Stage of disease, current

Same code as for column 18

26 Clinical status, current

Same code as for column 19

27 Number of clinic visits during interval (This will be available only when all clinic visits are recorded)

0 . . . None
1 . . . One
2 . . . Two
(Space)
9 . . . Nine or more
X . . . No report

28 Sputum, current

1 . . . Positive
2 . . . Negative
X . . . Not stated

29 Supervision

0 . . . None
1 . . . Private physician
2 . . . Local health department
3 . . . Clinic
4 . . . Tuberculosis sanatorium
5 . . . Other hospital
6 . . . Mental institution
9 . . . Other
X . . . Not stated

30 PHN Supervision

1 . . . Yes
2 . . . No
X . . . Not stated

31-32 Date discharged from current file

Numerical—last two digits of year

33 Reason discharged

1 . . . Arrested or apparently cured
2 . . . Dead
3 . . . Lost
4 . . . Moved out of state
5 . . . Old primary
6 . . . Non tuberculous
9 . . . Other
X . . . Not stated

34 Interval between first official report and discharge from current file

0 . . . None
1 . . . Under 3 months
2 . . . 3-5 months
3 . . . 6-11 months
4 . . . 12-23 months
5 . . . 24-35 months
6 . . . 3-5 years
7 . . . 6 years and over

GLOSSARY

Administratively Active Cases

Cases under current medical supervision or in need of medical supervision as defined by State and local policies of case management.

Annual Tuberculosis Report

A summary report of chest clinic and tuberculosis public health nursing services to be requested annually by the Tuberculosis Control Division, U. S. Public Health Service.

Current File

A file containing the latest known record for every tuberculosis case or suspect considered "administratively active" by the head of the State Tuberculosis Office.

Closed File

A file containing cases not administratively active—i.e., dead, lost, moved out of the State, or not in need of medical supervision as defined by State and local policies of case management.

Follow-up

A process of discovering, recording, and periodically reviewing control activities to determine present status of suspects and proven cases, as well as to indicate action needed.

Initial Case Selection

A process of choosing cases to be included at the time of the Central Record System installation.

Interchange of Information

A method of maintaining current information on tuberculosis cases by circulation of information among the State health department, local health department and all other agencies or individuals concerned with examination, diagnosis, treatment, or supervision of tuberculosis cases (such as private physicians, sanatoria, tuberculosis associations, health department clinics and nurses, and public health nursing organizations).

Information Interchange Form

A general purpose form used between Central Record Systems and interested parties for the interchange of information to be used when a special purpose form is not indicated.

Local Tuberculosis Case Register

A system of records for maintaining a current summary of pertinent medical and public health data on those proven and suspected cases of tuberculosis which, according to health department policy, require some type of supervision . . . used primarily to direct the supervision of such cases.

Master Index

An alphabetical file which contains a card for every tuberculosis case ever reported and shows where record card is filed.

Physician's Periodic Report

A method of follow up (questionnaire form, phone call or visit) to determine current status,

preferably at 6-month intervals, of those tuberculosis patients under care of a private physician.

Record Analyst

The individual, qualified by education and experience in records and statistics, who is responsible for supervising the maintenance and use of the Central Record System and related records under the supervision of the tuberculosis control director.

Semi-Annual Tuberculosis Report

A summary report of mass radiography, tuberculosis morbidity and mortality to be requested semi-annually by the Tuberculosis Control Division, U. S. Public Health Service.

State Central Record System

A system of records for maintaining a current summary of pertinent medical and public health data on those proven and suspected cases of tuberculosis which, according to health department policy, require some type of supervision . . . essentially an administrative tool for program planning, supervision and evaluation.

Status of Cases, Current

Latest known supervision (in sanatorium or at home), activity of disease, or sputum status of patients.

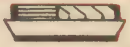
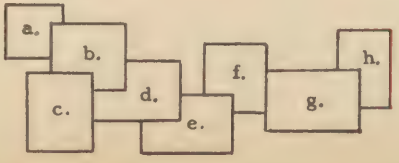
Vertical Visible or Offset Visible File

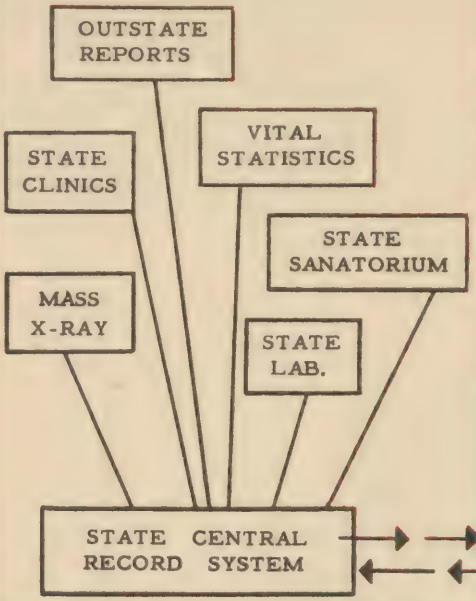
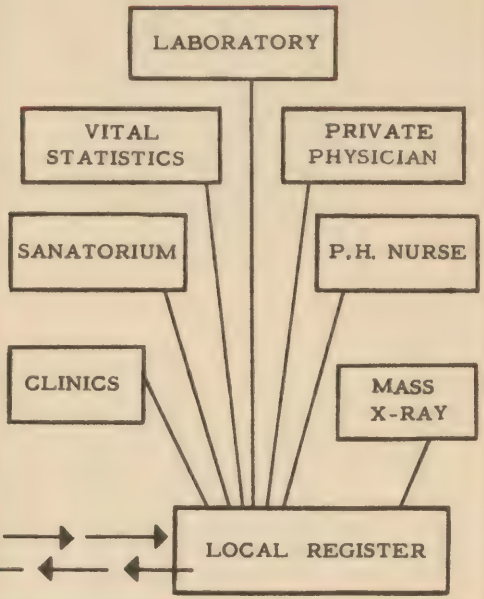
A file with a series of overlapping, vertically-supported record cards allowing visibility of the right vertical margin.

Worksheet

An intermediate temporary record of each case used to simplify the mechanics of clearing and to aid in installing the record system.

CHART OF STATE CENTRAL CASE RECORD SYSTEM AND LOCAL CASE REGISTER

	STATE CENTRAL CASE RECORD SYSTEM	LOCAL CASE REGISTER
1. DEFINITION	System of records for maintaining a current summary of all cases and suspects considered by the health department as significant for some type of supervision.	Same
2. USES	Primary uses to: a. assist in establishing local case registers. b. define and describe the tuberculosis problem in the state. c. plan a tuberculosis control program. d. administer the program.	Primary use is to: Manage individual cases.
3. CASE RECORD CARD	 Vertical visible card	Same card Space allowed for more details of contact history and home nursing visits. Pocket visible card optional
4. VISIBLE FILING EQUIPMENT	 Sufficient to include all records for cases in state.	 Sufficient to include all records for cases in county.
5. PERSONNEL	Case records supervisor and clerks. (Number of clerks determined by size of problem.)	Public Health Nurse and one clerk to maintain record system with case load up to 1,000.
6. SOURCES OF INFORMATION	a. clinics b. Public Health Nursing Divisions c. hospitals and sanatoria d. laboratories e. private physicans f. mass x-ray services g. Army and Navy h. Veterans' Hospitals i. welfare agencies j. voluntary health agencies k. vital statistics bureaus l. other State and local health departments	Same
7. FORMS FOR ROUTING INFORMATION		Same

8. INITIAL CASES	Cases reported within past five years.	Same
CLEARING FOR INITIAL CASES	Investigate readily available sources.	Same
SELECTION OF INITIAL CASES	Select according to state policy which defines "administratively active" cases.	Select according to policy which defines "administratively active" cases
9. INTERCHANGE OF INFORMATION		
10. MAINTENANCE	a. Abstract information from reports. b. Enter material on record cards. c. Route information to proper health department. d. Signal for 1. Maintenance of state program. 2. Administration of program.	a. Same b. Same c. Route information to state health department. d. Signal for Individual case supervision.

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